

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 16:27:58 ON 04 JUN 2003

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FILE COVERS 1907 - 4 Jun 2003 VOL 138 ISS 23

FILE LAST UPDATED: 3 Jun 2003 (20030603/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D QUE L92

| | | | |
|-----|-------|--------------------------|--|
| L55 | 1 | SEA FILE=REGISTRY ABB=ON | POLYBUTADIENE/CN |
| L57 | 24859 | SEA FILE=HCAPLUS ABB=ON | L55 |
| L58 | 37746 | SEA FILE=HCAPLUS ABB=ON | L57 OR POLYBUTADIENE |
| L71 | 1 | SEA FILE=REGISTRY ABB=ON | SILICA/CN |
| L85 | 1371 | SEA FILE=HCAPLUS ABB=ON | L58 AND (TILE? OR TILING OR PAVING OR FLOOR? OR POINT? OR SCREED?) |
| L86 | 571 | SEA FILE=HCAPLUS ABB=ON | L85 AND MIX? |
| L87 | 71 | SEA FILE=HCAPLUS ABB=ON | L86 AND CONCRETE?/SC, SX |
| L88 | 13 | SEA FILE=HCAPLUS ABB=ON | L87 AND (DRY(3A)PARTIC? OR SILICA OR SIO2 OR SAND OR SILICON DIOXIDE OR L71) |
| L89 | 10 | SEA FILE=HCAPLUS ABB=ON | L87 AND FLOW? |
| L90 | 8 | SEA FILE=HCAPLUS ABB=ON | L58 AND GROUT? |
| L91 | 4 | SEA FILE=HCAPLUS ABB=ON | L90 AND MIX? |
| L92 | 22 | SEA FILE=HCAPLUS ABB=ON | L89 OR L91 OR L88 |

=> D QUE L93

| | | | |
|-----|-------|--------------------------|---|
| L53 | 2 | SEA FILE=REGISTRY ABB=ON | (1344-28-1/BI OR 1345-25-1/BI) |
| L55 | 1 | SEA FILE=REGISTRY ABB=ON | POLYBUTADIENE/CN |
| L56 | 1 | SEA FILE=REGISTRY ABB=ON | "SHELLSOL D 25"/CN |
| L57 | 24859 | SEA FILE=HCAPLUS ABB=ON | L55 |
| L58 | 37746 | SEA FILE=HCAPLUS ABB=ON | L57 OR POLYBUTADIENE |
| L59 | 1 | SEA FILE=HCAPLUS ABB=ON | L56 OR SHELLSOL D25 OR SHELLSOLD25 |
| L60 | 0 | SEA FILE=HCAPLUS ABB=ON | L58 AND L59 |
| L61 | 30 | SEA FILE=HCAPLUS ABB=ON | L58 AND FLOW?(3A) (CONTROL? OR ENHANC?) |
| L62 | 15 | SEA FILE=HCAPLUS ABB=ON | L61 AND MIX? |
| L63 | 1 | SEA FILE=HCAPLUS ABB=ON | L61 AND CONCRETE?/SC, SX |
| L64 | 3 | SEA FILE=HCAPLUS ABB=ON | L62 AND SET? |
| L65 | 4 | SEA FILE=HCAPLUS ABB=ON | L61 AND SET? |
| L66 | 4 | SEA FILE=HCAPLUS ABB=ON | (L63 OR L64 OR L65) |
| L67 | 4 | SEA FILE=HCAPLUS ABB=ON | L60 OR L66 |
| L68 | 1 | SEA FILE=HCAPLUS ABB=ON | L61 AND (L53 OR ALUMINA OR AL2O3 OR |

ALUMINUM OXIDE OR FERROUS OXIDE OR FEO OR IRON OXIDE)
L69 3 SEA FILE=HCAPLUS ABB=ON L61 AND (TILE? OR TILING OR PAVING OR
FLOOR? OR SCREED?)
L70 5 SEA FILE=HCAPLUS ABB=ON L61 AND (SILICA OR SAND OR SIO2 OR
SILICON DIOXIDE OR SILICA/RN)
L71 1 SEA FILE=REGISTRY ABB=ON SILICA/CN
L72 2 SEA FILE=HCAPLUS ABB=ON L61 AND L71
L73 7 SEA FILE=HCAPLUS ABB=ON (L67 OR L68 OR L69 OR L70) OR L72
L74 0 SEA FILE=HCAPLUS ABB=ON L61 AND (NON ADHESI? OR NONADHESI?)
L75 7 SEA FILE=HCAPLUS ABB=ON L73 OR L74
L85 1371 SEA FILE=HCAPLUS ABB=ON L58 AND (TILE? OR TILING OR PAVING OR
FLOOR? OR POINT? OR SCREED?)
L86 571 SEA FILE=HCAPLUS ABB=ON L85 AND MIX?
L87 71 SEA FILE=HCAPLUS ABB=ON L86 AND CONCRETE?/SC, SX
L88 13 SEA FILE=HCAPLUS ABB=ON L87 AND (DRY(3A)PARTIC? OR SILICA OR
SIO2 OR SAND OR SILICON DIOXIDE OR L71)
L89 10 SEA FILE=HCAPLUS ABB=ON L87 AND FLOW?
L90 8 SEA FILE=HCAPLUS ABB=ON L58 AND GROUT?
L91 4 SEA FILE=HCAPLUS ABB=ON L90 AND MIX?
L92 22 SEA FILE=HCAPLUS ABB=ON L89 OR L91 OR L88
L93 27 SEA FILE=HCAPLUS ABB=ON L92 OR L75

=> FILE WPIX

FILE 'WPIX' ENTERED AT 16:28:53 ON 04 JUN 2003
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FILE LAST UPDATED: 3 JUN 2003 <20030603/UP>
MOST RECENT DERWENT UPDATE: 200335 <200335/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> NEW WEEKLY SDI FREQUENCY AVAILABLE --> see NEWS <<<

>>> SLART (Simultaneous Left and Right Truncation) is now
available in the /ABEX field. An additional search field
/BIX is also provided which comprises both /BI and /ABEX <<<

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<

>>> FOR DETAILS OF THE PATENTS COVERED IN CURRENT UPDATES,
SEE <http://www.derwent.com/dwpi/updates/dwpicov/index.html> <<<

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
PLEASE VISIT:
http://www.stn-international.de/training_center/patents/stn_guide.pdf <<<

>>> FOR INFORMATION ON ALL DERWENT WORLD PATENTS INDEX USER
GUIDES, PLEASE VISIT:
http://www.derwent.com/userguides/dwpi_guide.html <<<

=> D QUE L95

L53 2 SEA FILE=REGISTRY ABB=ON (1344-28-1/BI OR 1345-25-1/BI)
L55 1 SEA FILE=REGISTRY ABB=ON POLYBUTADIENE/CN
L56 1 SEA FILE=REGISTRY ABB=ON "SHELLSOL D 25"/CN
L57 24859 SEA FILE=HCAPLUS ABB=ON L55
L58 37746 SEA FILE=HCAPLUS ABB=ON L57 OR POLYBUTADIENE
L59 1 SEA FILE=HCAPLUS ABB=ON L56 OR SHELLSOL D25 OR SHELLSOLD25
L60 0 SEA FILE=HCAPLUS ABB=ON L58 AND L59

L61 30 SEA FILE=HCAPLUS ABB=ON L58 AND FLOW?(3A) (CONTROL? OR ENHANC?)
 L62 15 SEA FILE=HCAPLUS ABB=ON L61 AND MIX?
 L63 1 SEA FILE=HCAPLUS ABB=ON L61 AND CONCRETE?/SC, SX
 L64 3 SEA FILE=HCAPLUS ABB=ON L62 AND SET?
 L65 4 SEA FILE=HCAPLUS ABB=ON L61 AND SET?
 L66 4 SEA FILE=HCAPLUS ABB=ON (L63 OR L64 OR L65)
 L67 4 SEA FILE=HCAPLUS ABB=ON L60 OR L66
 L68 1 SEA FILE=HCAPLUS ABB=ON L61 AND (L53 OR ALUMINA OR AL2O3 OR ALUMINUM OXIDE OR FERROUS OXIDE OR FEO OR IRON OXIDE)
 L69 3 SEA FILE=HCAPLUS ABB=ON L61 AND (TILE? OR TILING OR PAVING OR FLOOR? OR SCREED?)
 L70 5 SEA FILE=HCAPLUS ABB=ON L61 AND (SILICA OR SAND OR SIO2 OR SILICON DIOXIDE OR SILICA/RN)
 L71 1 SEA FILE=REGISTRY ABB=ON SILICA/CN
 L72 2 SEA FILE=HCAPLUS ABB=ON L61 AND L71
 L73 7 SEA FILE=HCAPLUS ABB=ON (L67 OR L68 OR L69 OR L70) OR L72
 L74 0 SEA FILE=HCAPLUS ABB=ON L61 AND (NON ADHESI? OR NONADHESI?)
 L75 7 SEA FILE=HCAPLUS ABB=ON L73 OR L74
 L85 1371 SEA FILE=HCAPLUS ABB=ON L58 AND (TILE? OR TILING OR PAVING OR FLOOR? OR POINT? OR SCREED?)
 L86 571 SEA FILE=HCAPLUS ABB=ON L85 AND MIX?
 L87 71 SEA FILE=HCAPLUS ABB=ON L86 AND CONCRETE?/SC, SX
 L88 13 SEA FILE=HCAPLUS ABB=ON L87 AND (DRY(3A) PARTIC? OR SILICA OR SIO2 OR SAND OR SILICON DIOXIDE OR L71)
 L89 10 SEA FILE=HCAPLUS ABB=ON L87 AND FLOW?
 L90 8 SEA FILE=HCAPLUS ABB=ON L58 AND GROUT?
 L91 4 SEA FILE=HCAPLUS ABB=ON L90 AND MIX?
 L92 22 SEA FILE=HCAPLUS ABB=ON L89 OR L91 OR L88
 L94 26 SEA FILE=WPIX ABB=ON L92 OR L75
 L95 3 SEA FILE=WPIX ABB=ON L94 AND C04B?/IC

=> FILE JAPIO

FILE 'JAPIO' ENTERED AT 16:29:04 ON 04 JUN 2003

COPYRIGHT (C) 2003 Japanese Patent Office (JPO)- JAPIO

FILE LAST UPDATED: 21 MAY 2003 <20030521/UP>

FILE COVERS APR 1973 TO JANUARY 31, 2003

<<< GRAPHIC IMAGES AVAILABLE >>>

=> D QUE L78

L53 2 SEA FILE=REGISTRY ABB=ON (1344-28-1/BI OR 1345-25-1/BI)
 L55 1 SEA FILE=REGISTRY ABB=ON POLYBUTADIENE/CN
 L56 1 SEA FILE=REGISTRY ABB=ON "SHELLSOL D 25"/CN
 L57 24859 SEA FILE=HCAPLUS ABB=ON L55
 L58 37746 SEA FILE=HCAPLUS ABB=ON L57 OR POLYBUTADIENE
 L59 1 SEA FILE=HCAPLUS ABB=ON L56 OR SHELLSOL D25 OR SHELLSOLD25
 L60 0 SEA FILE=HCAPLUS ABB=ON L58 AND L59
 L61 30 SEA FILE=HCAPLUS ABB=ON L58 AND FLOW?(3A) (CONTROL? OR ENHANC?)
 L62 15 SEA FILE=HCAPLUS ABB=ON L61 AND MIX?
 L63 1 SEA FILE=HCAPLUS ABB=ON L61 AND CONCRETE?/SC, SX
 L64 3 SEA FILE=HCAPLUS ABB=ON L62 AND SET?
 L65 4 SEA FILE=HCAPLUS ABB=ON L61 AND SET?
 L66 4 SEA FILE=HCAPLUS ABB=ON (L63 OR L64 OR L65)
 L67 4 SEA FILE=HCAPLUS ABB=ON L60 OR L66

L68 1 SEA FILE=HCAPLUS ABB=ON L61 AND (L53 OR ALUMINA OR AL2O3 OR
ALUMINUM OXIDE OR FERROUS OXIDE OR FEO OR IRON OXIDE)
L69 3 SEA FILE=HCAPLUS ABB=ON L61 AND (TILE? OR TILING OR PAVING OR
FLOOR? OR SCREED?)
L70 5 SEA FILE=HCAPLUS ABB=ON L61 AND (SILICA OR SAND OR SIO2 OR
SILICON DIOXIDE OR SILICA/RN)
L71 1 SEA FILE=REGISTRY ABB=ON SILICA/CN
L72 2 SEA FILE=HCAPLUS ABB=ON L61 AND L71
L73 7 SEA FILE=HCAPLUS ABB=ON (L67 OR L68 OR L69 OR L70) OR L72
L74 0 SEA FILE=HCAPLUS ABB=ON L61 AND (NON ADHESI? OR NONADHESI?)
L78 0 SEA FILE=JAPIO ABB=ON L73 OR L74

=> FILE COMPEND

FILE 'COMPENDEX' ENTERED AT 16:29:17 ON 04 JUN 2003

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FILE LAST UPDATED: 2 JUN 2003

<20030602/UP>

FILE COVERS 1970 TO DATE.

<<< SIMULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
THE BASIC INDEX >>>

=> D QUE L81

L55 1 SEA FILE=REGISTRY ABB=ON POLYBUTADIENE/CN
L57 24859 SEA FILE=HCAPLUS ABB=ON L55
L58 37746 SEA FILE=HCAPLUS ABB=ON L57 OR POLYBUTADIENE
L81 3 SEA FILE=COMPENDEX ABB=ON L58 AND FLOW?(3A) (CONTROL? OR
ENHANC?)

=> FILE JICST

FILE 'JICST-EPLUS' ENTERED AT 16:29:31 ON 04 JUN 2003

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FILE COVERS 1985 TO 2 JUN 2003 (20030602/ED)

THE JICST-EPLUS FILE HAS BEEN RELOADED TO REFLECT THE 1999 CONTROLLED
TERM (/CT) THESAURUS RELOAD.

=> D QUE L82

L53 2 SEA FILE=REGISTRY ABB=ON (1344-28-1/BI OR 1345-25-1/BI)
L55 1 SEA FILE=REGISTRY ABB=ON POLYBUTADIENE/CN
L56 1 SEA FILE=REGISTRY ABB=ON "SHELLSOL D 25"/CN
L57 24859 SEA FILE=HCAPLUS ABB=ON L55
L58 37746 SEA FILE=HCAPLUS ABB=ON L57 OR POLYBUTADIENE
L59 1 SEA FILE=HCAPLUS ABB=ON L56 OR SHELLSOL D25 OR SHELLSOLD25
L60 0 SEA FILE=HCAPLUS ABB=ON L58 AND L59
L61 30 SEA FILE=HCAPLUS ABB=ON L58 AND FLOW?(3A) (CONTROL? OR
ENHANC?)
L62 15 SEA FILE=HCAPLUS ABB=ON L61 AND MIX?
L63 1 SEA FILE=HCAPLUS ABB=ON L61 AND CONCRETE?/SC, SX
L64 3 SEA FILE=HCAPLUS ABB=ON L62 AND SET?
L65 4 SEA FILE=HCAPLUS ABB=ON L61 AND SET?
L66 4 SEA FILE=HCAPLUS ABB=ON (L63 OR L64 OR L65)
L67 4 SEA FILE=HCAPLUS ABB=ON L60 OR L66

L68 1 SEA FILE=HCAPLUS ABB=ON L61 AND (L53 OR ALUMINA OR AL2O3 OR
ALUMINUM OXIDE OR FERROUS OXIDE OR FEO OR IRON OXIDE)
L69 3 SEA FILE=HCAPLUS ABB=ON L61 AND (TILE? OR TILING OR PAVING OR
FLOOR? OR SCREED?)
L70 5 SEA FILE=HCAPLUS ABB=ON L61 AND (SILICA OR SAND OR SIO2 OR
SILICON DIOXIDE OR SILICA/RN)
L71 1 SEA FILE=REGISTRY ABB=ON SILICA/CN
L72 2 SEA FILE=HCAPLUS ABB=ON L61 AND L71
L73 7 SEA FILE=HCAPLUS ABB=ON (L67 OR L68 OR L69 OR L70) OR L72
L74 0 SEA FILE=HCAPLUS ABB=ON L61 AND (NON ADHESI? OR NONADHESI?)
L82 0 SEA FILE=JICST-EPLUS ABB=ON L73 OR L74

=> FILE NTIS

FILE 'NTIS' ENTERED AT 16:29:42 ON 04 JUN 2003

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FILE LAST UPDATED: 31 MAY 2003

<20030531/UP>

FILE COVERS 1964 TO DATE.

<<<SIMOULTANEOUS LEFT AND RIGHT TRUNCATION AVAILABLE IN
THE BASIC INDEX (/BI) >>>

=> D QUE L83

L53 2 SEA FILE=REGISTRY ABB=ON (1344-28-1/BI OR 1345-25-1/BI)
L55 1 SEA FILE=REGISTRY ABB=ON POLYBUTADIENE/CN
L56 1 SEA FILE=REGISTRY ABB=ON "SHELLSOL D 25"/CN
L57 24859 SEA FILE=HCAPLUS ABB=ON L55
L58 37746 SEA FILE=HCAPLUS ABB=ON L57 OR POLYBUTADIENE
L59 1 SEA FILE=HCAPLUS ABB=ON L56 OR SHELLSOL D25 OR SHELLSOLD25
L60 0 SEA FILE=HCAPLUS ABB=ON L58 AND L59
L61 30 SEA FILE=HCAPLUS ABB=ON L58 AND FLOW?(3A) (CONTROL? OR
ENHANC?)
L62 15 SEA FILE=HCAPLUS ABB=ON L61 AND MIX?
L63 1 SEA FILE=HCAPLUS ABB=ON L61 AND CONCRETE?/SC, SX
L64 3 SEA FILE=HCAPLUS ABB=ON L62 AND SET?
L65 4 SEA FILE=HCAPLUS ABB=ON L61 AND SET?
L66 4 SEA FILE=HCAPLUS ABB=ON (L63 OR L64 OR L65)
L67 4 SEA FILE=HCAPLUS ABB=ON L60 OR L66
L68 1 SEA FILE=HCAPLUS ABB=ON L61 AND (L53 OR ALUMINA OR AL2O3 OR
ALUMINUM OXIDE OR FERROUS OXIDE OR FEO OR IRON OXIDE)
L69 3 SEA FILE=HCAPLUS ABB=ON L61 AND (TILE? OR TILING OR PAVING OR
FLOOR? OR SCREED?)
L70 5 SEA FILE=HCAPLUS ABB=ON L61 AND (SILICA OR SAND OR SIO2 OR
SILICON DIOXIDE OR SILICA/RN)
L71 1 SEA FILE=REGISTRY ABB=ON SILICA/CN
L72 2 SEA FILE=HCAPLUS ABB=ON L61 AND L71
L73 7 SEA FILE=HCAPLUS ABB=ON (L67 OR L68 OR L69 OR L70) OR L72
L74 0 SEA FILE=HCAPLUS ABB=ON L61 AND (NON ADHESI? OR NONADHESI?)
L83 0 SEA FILE=NTIS ABB=ON L73 OR L74

=> FILE CERAB

FILE 'CERAB' ENTERED AT 16:29:53 ON 04 JUN 2003

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FILE COVERS 1976 TO 23 MAY 1997 (970523/ED)

THIS FILE IS CURRENTLY NOT BEING UPDATED.

=> D QUE L84

L53 2 SEA FILE=REGISTRY ABB=ON (1344-28-1/BI OR 1345-25-1/BI)
 L55 1 SEA FILE=REGISTRY ABB=ON POLYBUTADIENE/CN
 L56 1 SEA FILE=REGISTRY ABB=ON "SHELLSOL D 25"/CN
 L57 24859 SEA FILE=HCAPLUS ABB=ON L55
 L58 37746 SEA FILE=HCAPLUS ABB=ON L57 OR POLYBUTADIENE
 L59 1 SEA FILE=HCAPLUS ABB=ON L56 OR SHELLSOL D25 OR SHELLSOLD25
 L60 0 SEA FILE=HCAPLUS ABB=ON L58 AND L59
 L61 30 SEA FILE=HCAPLUS ABB=ON L58 AND FLOW?(3A) (CONTROL? OR
 ENHANC?)
 L62 15 SEA FILE=HCAPLUS ABB=ON L61 AND MIX?
 L63 1 SEA FILE=HCAPLUS ABB=ON L61 AND CONCRETE?/SC, SX
 L64 3 SEA FILE=HCAPLUS ABB=ON L62 AND SET?
 L65 4 SEA FILE=HCAPLUS ABB=ON L61 AND SET?
 L66 4 SEA FILE=HCAPLUS ABB=ON (L63 OR L64 OR L65)
 L67 4 SEA FILE=HCAPLUS ABB=ON L60 OR L66
 L68 1 SEA FILE=HCAPLUS ABB=ON L61 AND (L53 OR ALUMINA OR AL2O3 OR
 ALUMINUM OXIDE OR FERROUS OXIDE OR FEO OR IRON OXIDE)
 L69 3 SEA FILE=HCAPLUS ABB=ON L61 AND (TILE? OR TILING OR PAVING OR
 FLOOR? OR SCREED?)
 L70 5 SEA FILE=HCAPLUS ABB=ON L61 AND (SILICA OR SAND OR SIO2 OR
 SILICON DIOXIDE OR SILICA/RN)
 L71 1 SEA FILE=REGISTRY ABB=ON SILICA/CN
 L72 2 SEA FILE=HCAPLUS ABB=ON L61 AND L71
 L73 7 SEA FILE=HCAPLUS ABB=ON (L67 OR L68 OR L69 OR L70) OR L72
 L74 0 SEA FILE=HCAPLUS ABB=ON L61 AND (NON ADHESI? OR NONADHESI?)
 L84 0 SEA FILE=CERAB ABB=ON L73 OR L74

=> DUP REM L93 L95

FILE 'HCAPLUS' ENTERED AT 16:30:18 ON 04 JUN 2003
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FILE 'WPIX' ENTERED AT 16:30:18 ON 04 JUN 2003
 COPYRIGHT (C) 2003 THOMSON DERWENT
 PROCESSING COMPLETED FOR L93
 PROCESSING COMPLETED FOR L95
 L96 29 DUP REM L93 L95 (1 DUPLICATE REMOVED)

=> D L96 ALL 1-29

L96 ANSWER 1 OF 29 HCAPLUS COPYRIGHT 2003 ACS
 AN 2003:366554 HCAPLUS
 TI Vibrocompacted hot asphalt concrete **mix** containing milled
 concrete waste
 IN Iliopolov, S. K.; Kotov, V. L.; Mardirosova, I. V.; Uglova, E. V.; Pronin,
 V. V.; Vislobokov, E. M.
 PA Rostovskii Gosudarstvennyi Stroitel'nyi Universitet, Russia
 SO Russ., No pp. given
 CODEN: RUXXE7
 DT Patent
 LA Russian

IC ICM C04B026-26

CC 58-4 (Cement, **Concrete**, and Related Building Materials)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | RU 2196751 | C1 | 20030120 | RU 2001-113585 | 20010517 |
| PRAI | RU 2001-113585 | | 20010517 | | |

AB The invention is suitable in the manuf. of road-building materials, applicable for construction and overhaul of roadway asphalt pavements. The vibrocompacted hot asphalt concrete **mix** comprises crushed rock of 5-20 mm fraction 32.6-40.8, **sand** filler 13-16, bitumen binder 20-23, milled asphalt concrete having a piece size .1toreq.15 mm 26-28, and SVB-M - oil soln. of synthetic high-mol. **polybutadiene** rubber 0.2-0.4 wt.%. Riddling of crushed rocks having a piece size .1toreq.5 mm are used as a filler. The resulting asphalt concrete **mix** has enhanced compressive, shear and tensile strengths, reduced consumption of mineral materials and binder due to salvaging of waste of milled old asphalt concrete.

ST asphalt concrete waste rubber vibrocompacted pavement

IT Bitumens

RL: TEM (Technical or engineered material use); USES (Uses)
 (BND 40/60, component of asphalt concrete **mix**; vibrocompacted hot asphalt concrete **mix** contg. milled concrete waste)

IT Recycling

(asphalt concrete waste; vibrocompacted hot asphalt concrete **mix** contg. milled concrete waste)

IT Compressive strength

Shear strength

Tensile strength

(asphalt concrete; vibrocompacted hot asphalt concrete **mix** contg. milled concrete waste)

IT Rocks

RL: TEM (Technical or engineered material use); USES (Uses)
 (crushed rock, asphalt concrete aggregate; vibrocompacted hot asphalt concrete **mix** contg. milled concrete waste)

IT Solid wastes

(milled asphalt concrete waste; vibrocompacted hot asphalt concrete **mix** contg. milled concrete waste)

IT **Paving** materials

(roadway asphalt; vibrocompacted hot asphalt concrete **mix** contg. milled concrete waste)

IT Asphalt concrete

(vibrocompacted hot asphalt concrete **mix** contg. milled concrete waste)

IT 521969-94-8

RL: MOA (Modifier or additive use); USES (Uses)
 (**polybutadiene** rubber, component of asphalt concrete **mix**; vibrocompacted hot asphalt concrete **mix** contg. milled concrete waste)

L96 ANSWER 2 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:275871 HCAPLUS

DN 136:279653

TI Solid phase combinatorial system for the synthesis of DNA

IN Van Dam, R. Michael; Unger, Marc A.; Quake, Stephen R.

PA California Institute of Technology, USA

SO PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DT Patent
 LA English
 IC ICM B01L003-00
 CC 33-10 (Carbohydrates)
 Section cross-reference(s): 6, 38, 80

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 2002028533 | A1 | 20020411 | WO 2001-US31495 | 20011003 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | US 6508988 | B1 | 20030121 | US 2000-679432 | 20001003 |
| | AU 2002011542 | A5 | 20020415 | AU 2002-11542 | 20011003 |
| PRAI | US 2000-679432 | A | 20001003 | | |
| | WO 2001-US31495 | W | 20011003 | | |
| AB | <p>The present invention provides a chem. reaction app. for synthesizing an array of DNA (no data), and methods for using the same. In particular, the chem. reaction app. comprises a solid support base (100), a first elastic member (20) attached to the solid support base (100), and a first plurality of flow channels (104) between the solid support base and the first elastic member (20). In addn., the solid support base (100) comprises a functional group within at least a portion of the first plurality of flow channels (104) for attaching compds. thereto. Moreover, the chem. reaction app. of the present invention can also include a second elastic member (200) attached to the first elastic member (20). A plurality of pressure channels (304) in between the first (20) and the second (200) elastic members allows control of fluid flow within the first plurality of flow channels (104) and/or the second plurality of flow channels (108).</p> | | | | |
| ST | solid phase combinatorial system synthesis DNA app polymer elastic | | | | |
| IT | Polysiloxanes, reactions | | | | |
| | RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial study); RACT (Reactant or reagent) (carborane-; polymer support solid phase combinatorial system for the synthesis of DNA) | | | | |
| IT | Combinatorial library | | | | |
| | Latex | | | | |
| | Solid phase synthesis | | | | |
| | (polymer support solid phase combinatorial system for the synthesis of DNA) | | | | |
| IT | Fluoro rubber | | | | |
| | Fluoropolymers, reactions | | | | |
| | Glass, reactions | | | | |
| | Phosphazenes | | | | |
| | Polycarbonates, reactions | | | | |
| | Polysulfones, reactions | | | | |
| | Polyurethanes, reactions | | | | |
| | Silicone rubber, reactions | | | | |
| | RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial study); RACT (Reactant or reagent) (polymer support solid phase combinatorial system for the synthesis of | | | | |

DNA)
 IT DNA
 RL: PNU (Preparation, unclassified); PREP (Preparation)
 (polymer support solid phase combinatorial system for the synthesis of
 DNA)
 IT Carboranes
 RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial
 study); RACT (Reactant or reagent)
 (siloxane-; polymer support solid phase combinatorial system for the
 synthesis of DNA)
 IT Combinatorial chemistry
 (solid-phase; polymer support solid phase combinatorial system for the
 synthesis of DNA)
 IT 79-10-7D, Acrylic acid, ester polymer 1303-00-0, Gallium arsenide,
 reactions 7440-57-5, Gold, reactions **7631-86-9**,
Silicon dioxide, reactions 9002-86-2, Polyvinyl
 chloride **9003-17-2**, **Polybutadiene** 9003-18-3,
 Acrylonitrile-butadiene copolymer 9003-27-4, Polyisobutylene
 9003-28-5, Poly(1-butene) 9003-31-0, Polyisoprene 9003-53-6,
 Polystyrene 9003-55-8, Butadiene-styrene, copolymer 9003-70-7,
 Styrene-divinylbenzene copolymer 9010-75-7,
 Chlorotrifluoroethylenevinylidene fluoride) copolymer 9010-98-4,
 Polychloroprene 12033-89-5, Silicon nitride, reactions 14808-60-7,
 Quartz, reactions 18358-13-9D, Methacrylate, polymer 24937-79-9,
 Poly(vinylidene fluoride 25104-37-4, Poly(ethyl vinyl ether)
 RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial
 study); RACT (Reactant or reagent)
 (polymer support solid phase combinatorial system for the synthesis of
 DNA)
 IT 9011-17-0, Vinylidene fluoride -hexafluoropropylene copolymer
 RL: CRG (Combinatorial reagent); RGT (Reagent); CMBI (Combinatorial
 study); RACT (Reactant or reagent)
 (prepn. of)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Kaltenbach; US 6264892 B1 2001 HCAPLUS
- (2) Kopf-Sill; US 6186660 B1 2001
- (3) Mathies; US 6261431 B1 2001 HCAPLUS
- (4) Parce; US 5942443 A 1999 HCAPLUS
- (5) Wilding; US 5866345 A 1999 HCAPLUS
- (6) Winkler; US 5885837 A 1999 HCAPLUS

L96 ANSWER 3 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:688570 HCAPLUS

DN 137:205251

TI Dual function gelled mastic adhesive and gelled mastic adhesive mortar

IN Kaiser, Conard E.; Collins, Jock R.; Collins, James R.

PA USA

SO U.S., 7 pp., Cont.-in-part of U.S. 6,201,050.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08K005-16

ICS C08K005-17; C08L033-02

NCL 524239000

CC 58-3 (Cement, **Concrete**, and Related Building Materials)

FAN.CNT 3

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|------|-----------------|------|
|------------|------|------|-----------------|------|

| | | | | | |
|------|-----------------|----|----------|----------------|----------|
| PI | US 6448317 | B1 | 20020910 | US 2000-668783 | 20000922 |
| | US 6201050 | B1 | 20010313 | US 1999-307502 | 19990507 |
| | AU 2000070908 | A5 | 20020313 | AU 2000-70908 | 20000830 |
| PRAI | US 1999-307502 | A2 | 19990507 | | |
| | US 1999-155329P | P | 19990922 | | |
| | US 1998-84804P | P | 19980507 | | |
| | WO 2000-US23818 | A | 20000830 | | |

AB An org., easy to use, dual function adhesive in the form of a single package ready-to-use stabilized gelled mastic adhesive which prevents the sepn. and settling of components, is used in the installation of ceramic **tile** as an ordinary mastic adhesive when used as furnished for ceiling and wall **tiles** and, when Portland powd. cement is added, becomes a high strength latex modified dry-set mortar because of the unique breakable gel properties of the mastic adhesive. The gelled mastic adhesive is usable as the water component for dry-set mortar because, on the addn. of portland cement, the gel will break and become a free-**flowing** liq. with additives thereby allowing precise quantitation and easy **mixing** to produce a homogeneous dry-set mortar with the strength and water resistance of a latex modified Portland cement based compn. and also functions as a waterproofing and crack suppressing membrane adhesive.

ST mastic adhesive mortar

IT **Tiles**
(ceramic; gelled mastic adhesive and mortar)

IT Cement
Grout
Mastics
Mortar
(gelled mastic adhesive and mortar)

IT Acrylic rubber
Butadiene rubber, uses
Styrene-butadiene rubber, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(latex; gelled mastic adhesive and mortar)

IT **9003-17-2**
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(butadiene rubber, latex; gelled mastic adhesive and mortar)

IT 9003-01-4, Polyacrylic acid
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(cross-linked; gelled mastic adhesive and mortar)

IT 57-55-6, Propylene glycol, uses 60-00-4, Ethylene diamine tetraacetic acid, uses 102-71-6, Triethanolamine, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(gelled mastic adhesive and mortar)

IT 9003-55-8
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(styrene-butadiene rubber, latex; gelled mastic adhesive and mortar)

IT 9004-32-4, Sodium CMC 9004-62-0, Hydroxy ethyl cellulose 9004-64-2, Hydroxy propyl cellulose 37353-59-6, Hydroxy methyl cellulose
RL: TEM (Technical or engineered material use); USES (Uses)
(thickening agent; gelled mastic adhesive and mortar)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Anon; JP 58017157 A 1993 HCAPLUS

L96 ANSWER 4 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:832407 HCAPLUS

DN 138:108030

TI Raising reactivity of Nd coordinate polymerization catalyst of non-homogeneous phase by turbulent flow

AU Wu, Xingan; Wu, Zhonghua; Liu, Hanmao; Mo, Kui; Liu, Huiqin

CS Department of Chemistry and Chemical Engineering, Hunan University, Changsha, 410082, Peop. Rep. China

SO Journal of Polymer Materials (2002), 19(3), 321-327

CODEN: JOPME8; ISSN: 0970-0838

PB Oxford & IBH Publishing Co. Pvt. Ltd.

DT Journal

LA English

CC 39-6 (Synthetic Elastomers and Natural Rubber)

AB This article is mainly concerned with the efforts to raise the reactivity of Nd coordinate polymn. catalyst. For rare earth metal catalyst system, such as Neodymium catalyst system, the center of catalytic activity is the heavy metal whose at. nucleus has stronger gravitational field than Ni, V, Cr and Ti. In the Ziegler-Natta catalyst system which uses Nd or other rare earth metals as catalysts, the performance of **polybutadiene** can be considerably improved. Using industrial materials, Nd-polymn. catalyst of non-homogeneous phase, when dispersed by turbulent **flow**, can **enhance** the catalytic reactivity by 240-400%. This process causes the catalyst to ppt. and become tiny particles with similar mol. state without sediment down, which can raise the catalytic reactivity substantially. In the article, expts. on the above issues are **set** up, rationalized and related data and phenomena are discussed, and in the end conclusions are drawn.

ST neodymium catalyst **polybutadiene** rubber prepn turbulent flow reactivity increase

IT Polymerization catalysts

(Ziegler-Natta; Nd-based coordinate catalyst for butadiene rubber synthesis)

IT Butadiene rubber, preparation

RL: SPN (Synthetic preparation); PREP (Preparation)

(reactivity of Nd-based coordinate catalyst for butadiene rubber synthesis)

IT Flow

(turbulent; for increasing reactivity of Nd-based coordinate catalyst for butadiene rubber synthesis)

IT 7440-00-8D, Neodymium, derivs.

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

((Octa)3Nd (sic); reactivity of Nd-based coordinate catalyst for butadiene rubber synthesis)

IT **9003-17-2P**

RL: SPN (Synthetic preparation); PREP (Preparation)

(butadiene rubber, reactivity of Nd-based coordinate catalyst for butadiene rubber synthesis)

IT 100-99-2D, Triisobutylaluminum, derivs. 12090-38-9D, Isobutylaluminum sesquichloride, derivs.

RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(reactivity of Nd-based coordinate catalyst for butadiene rubber synthesis)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anderson, W; DE 1144924 1963 HCAPLUS
- (2) Jenkins, A; Mechanism and Structure in Polymer chemistry 1974, P426
- (3) Jenkins, D; GB 2140435 1984 HCAPLUS
- (4) Jensen, V; Chem Phys Lett 1993, V212(3-4), P353 HCAPLUS
- (5) Jiang, L; China synth Rubber ind 1997, 4, P253 HCAPLUS
- (6) Jiang, Z; China Synth Rubber Ind 1990, 1, P11
- (7) Jiang, Z; China Synth Rubber Ind 1994, 1, P23 HCAPLUS
- (8) Li, Y; China Synth Rubber Ind 1994, 3, P146 HCAPLUS
- (9) Padretti, U; GB 2002003 1978 HCAPLUS
- (10) Qiao, S; China Synth Rubber Ind 1993, 1, P11 HCAPLUS
- (11) Ricci, G; Chem Rapid Commun 1986, V7, P355 HCAPLUS
- (12) Robinson, I; US 3118864 1964 HCAPLUS
- (13) Sabirov, Z; J Polym Sci part A; polym Chem
- (14) Shen, Z; Chinese Sci Bull 1964
- (15) Sylvester, G; DE 2830080 1980 HCAPLUS
- (16) Sylvester, G; DE 2848964 DP 1980 HCAPLUS
- (17) Throckmorton, M; US 3541063 1970
- (18) Throckmorton, M; US 3794604 1974
- (19) Von Dohlen, W; US 3297667 1964
- (20) Wu, X; China Synth Rubber Ind 1980, V3(1), P7
- (21) Wu, X; China Synth Rubber Ind 1981, V4(2), P82
- (22) Yeh, G; US 4544718 HCAPLUS
- (23) Yeh, G; US 4556647 A 1984 HCAPLUS
- (24) Zhang, X; China synth Rubber Ind 1996, 5, P278 HCAPLUS

L96 ANSWER 5 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:452971 HCAPLUS

DN 135:36326

TI Low-solids, high-strength multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar

IN Kaiser, Conard E.; Collins, Jock R.; Collins, James R.

PA USA

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C04B028-28

ICS C09J009-00; C09J109-08; C09J109-10; C09J133-02

CC 58-3 (Cement, **Concrete**, and Related Building Materials)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 2001044136 | A1 | 20010621 | WO 2000-US34177 | 20001215 |
| | W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR | | | | |
| | US 2002004538 | A1 | 20020110 | US 2000-739540 | 20001215 |
| | US 6528563 | B2 | 20030304 | | |
| PRAI | US 1999-170878P | P | 19991215 | | |

AB Multi-purpose homogeneous breakable gelled adhesives and adhesive mastics are used for the installation of various types of **tile**, including **tiles** with deeply grooved backs, stone, marble, and other **floor** and wall coverings, flexible sheet goods, carpet and

other uses, and can be **mixed** with a portland cement to form a powerful latex-modified mortar having the added utility of a crack suppressive adhesive and functioning as a waterproofing membrane. The stabilized gelled adhesive or adhesive mastic prevents the sepn. and settling of components, and when portland powd. cement is added, becomes a high strength latex-modified mortar. With the addn. of portland cement and **silica sand**, the gel will break and become a free-flowing liq. with additives which allow precise quantitation and easy **mixing** to produce a homogeneous latex modified thinset mortar that assumes the texture of a trowel-able thinset mortar as more portland cement/**silica sand** is added.

ST mortar cement latex modified gelled adhesive mastic

IT Mastics

(adhesive; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Concrete modifiers

(air-entraining agents, component of latex-modified mortar; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Phenols, uses

RL: MOA (Modifier or additive use); USES (Uses)

(alkyl, ethoxylated, surfactant; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Glycols, uses

RL: MOA (Modifier or additive use); USES (Uses)

(anti-freezing agent; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Latex

(aq. emulsion; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Fungicides

(component of latex-modified mortar; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Adhesives

(gelled; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Carpets

Floors

Tiles

Walls (construction)

(installation with latex-modified mortar; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Marble

Stone (construction material)

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(installation with latex-modified mortar; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Adhesion, physical

(latex-modified mortar for; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Mortar

(latex-modified; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Butadiene rubber, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(latex; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Waterproofing

(membrane of latex-modified mortar; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT Cement (construction material)
(portland, component latex-modified mortar; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT 9003-17-2
RL: TEM (Technical or engineered material use); USES (Uses)
(butadiene rubber, latex; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT 60-00-4, Ethylene diamine tetraacetic acid, uses
RL: MOA (Modifier or additive use); USES (Uses)
(chelating agent; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT 9003-55-8, Butadiene styrene copolymer
RL: TEM (Technical or engineered material use); USES (Uses)
(component of latex-modified mortar; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT 9003-01-4, Polyacrylic acid
RL: MOA (Modifier or additive use); USES (Uses)
(gelling agent; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

IT 9004-32-4, Carboxy methyl cellulose, sodium salt 9004-32-4, Carboxy methyl cellulose 9004-62-0, Hydroxy ethyl cellulose 9004-64-2, Hydroxy propyl cellulose 37353-59-6, Hydroxy methyl cellulose
RL: MOA (Modifier or additive use); USES (Uses)
(thickener; multi-use gelled adhesives and adhesive mastics to form a powerful latex-modified mortar)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Kwol; US 4471082 A 1984 HCAPLUS
- (2) Takahashi; JP 58017157 1983 HCAPLUS

L96 ANSWER 6 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:228953 HCAPLUS

DN 134:253420

TI Dual function gelled mastic adhesive and gelled mastic adhesive mortar

IN Kaiser, Conard E.; Collins, Jock R.; Collins, James R.

PA USA

SO PCT Int. Appl., 20 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08J005-10

ICS C08L001-10; C08L001-14; C08L001-20

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 58

FAN.CNT 3

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 2001021689 | A1 | 20010329 | WO 2000-US26200 | 20000922 |
| W: AE, AG, AL, AM, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CN, CR, CU, CZ, DM, DZ, EE, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, RO, RU, SD, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| AU 2000070908 | A5 | 20020313 | AU 2000-70908 | 20000830 |

PRAI US 1999-155329P P 19990922
 WO 2000-US23818 A 20000830

- AB A dual function viscous breakable gel mastic adhesive capable of use as a mastic adhesive and as a base for forming a latex modified dry-set mortar. comprises: a viscous homogeneous breakable gel mastic adhesive contg. a latex compd., a cellulose thickening agent, and at least one property enhancing additive evenly dispersed and suspended therein and having a viscosity level in the range of from about 4,000 to about 200,000 cP with the consistency of a custard or jelly; the gel mastic adhesive functioning as-is as a stable gel mastic adhesive and upon **mixing** with a powd. calcium-contg. cementitious material, breaking to become a free **flowing** liq. for hydrating the cementitious material and, after **mixing** therewith, forming a homogeneous high-strength latex modified dry-set mortar. The mastic is easy to use in the form of a single package ready-to-use stabilized gel which prevents sepn. and settling of components, and is useful in the installation of ceramic **tile** as an ordinary mastic adhesive when used as furnished for ceiling and wall **tiles** and, when Portland powd. cement is added, becomes a high strength latex modified dry-set mortar because of the unique breakable gel properties of the mastic adhesive. The gelled mastic adhesive is usable as the water component for dry-set mortar because, on the addn. of Portland cement, the gel will break and become a free-**flowing** liq. with additives thereby allowing precise quantitation and easy **mixing** to produce a homogeneous dry-set mortar with the strength and water resistance of a latex modified Portland cement based compn. and also functions as a waterproofing and crack suppressing membrane adhesive.
- ST mastic gel cellulose thickener latex; mortar dry set gel mastic
- IT Thickening agents
 (cellulose; dual function gelled mastic adhesive and gelled mastic adhesive mortar)
- IT Mortar
 (dry-set; dual function gelled mastic adhesive and gelled mastic adhesive mortar)
- IT Gelation agents
 Mastics
 (dual function gelled mastic adhesive and gelled mastic adhesive mortar)
- IT Butadiene rubber, uses
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (latex; dual function gelled mastic adhesive and gelled mastic adhesive mortar)
- IT Cement (construction material)
 (portland; dual function gelled mastic adhesive and gelled mastic adhesive mortar)
- IT Cement (construction material)
 (pozzolan, Portland-; dual function gelled mastic adhesive and gelled mastic adhesive mortar)
- IT Cement (construction material)
 (slag; dual function gelled mastic adhesive and gelled mastic adhesive mortar)
- IT **9003-17-2**
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
 (butadiene rubber, latex; dual function gelled mastic adhesive and gelled mastic adhesive mortar)
- IT 79-10-7D, Acrylic acid, crosslinked polymers

RL: MOA (Modifier or additive use); USES (Uses)
(dual function gelled mastic adhesive and gelled mastic adhesive mortar)

IT 9004-32-4, Carboxy methylcellulose 9004-32-4, Sodium CMC 9004-34-6, Cellulose, uses 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxy propyl cellulose 37353-59-6, Hydroxy methyl cellulose

RL: MOA (Modifier or additive use); USES (Uses)
(thickening agent; dual function gelled mastic adhesive and gelled mastic adhesive mortar)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bowden; US 4204876 A 1980 HCAPLUS
- (2) Earth Seiyaku Kk; JP 58017157 A 1983 HCAPLUS
- (3) Johansen; US 5855665 A 1999 HCAPLUS

L96 ANSWER 7 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:194860 HCAPLUS

DN 134:241549

TI Asphalt composition containing polyurethane, manufacture of the composition, and room temperature-curable pavement using the composition
IN Ikeda, Tadaaki; Torigata, Takayoshi; Maruyama, Akira; Murakami, Munehiro; Hanyu, Akiyoshi

PA Nichireki Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L075-04

ICS C08G018-76; C08J003-20; C08K005-00; C08L095-00; E01C007-18

CC 58-4 (Cement, **Concrete**, and Related Building Materials)

Section cross-reference(s): 38, 51

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------|------|----------|-----------------|----------|
| PI JP 2001072860 | A2 | 20010321 | JP 2000-199017 | 20000630 |

PRAI JP 1999-185494 A 19990630

AB The compn. is based on asphalt, a polyurethane-polyisocyanate prepolymer, and a plasticizer. The compn. is manufd. by **mixing** asphalt and the plasticizer followed by addn. of the prepolymer. The compn. is **mixed** with aggregates, preferably nonelastic aggregates, to give a room temp.-curable pavement compn. The compn. provides pavements with elasticity even though the aggregates are not elastomers (requiring heat in processing).

ST asphalt compn polyurethane polyisocyanate prepolymer plasticizer; pavement elasticity asphalt compn polyurethane plasticizer; nonelastic aggregate asphalt pavement compn

IT **Sand**

Stone (construction material)

RL: MOA (Modifier or additive use); USES (Uses)

(aggregates; asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)

IT **Paving materials**

Plasticizers

(asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)

IT Asphalt

Polyurethanes, uses

- RL: TEM (Technical or engineered material use); USES (Uses)
(asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- IT Butadiene rubber, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(hydroxy-terminated, R 45HT, reaction products with polyol and hydroxyalkyloxazolidine; asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- IT Aggregates
(nonelastic; asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- IT Polyurethanes, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(polyoxyalkylene-; asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- IT Polyoxyalkylenes, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(reaction product with hydroxy-terminated butadiene rubber, polyisocyanate, and hydroxyalkyloxazolidine; asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- IT 101-68-8DP, 4,4'-Diphenylmethane diisocyanate, reaction product with hydroxy-terminated butadiene rubber and hydroxyalkyloxazolidine
25322-69-4DP, Polypropylene glycol, reaction product with hydroxy-terminated butadiene rubber, polyisocyanate, and hydroxyalkyloxazolidine
28770-01-6DP, 2-Isopropyl-3-(2-hydroxyethyl)oxazolidine, reaction product with hydroxy-terminated butadiene rubber and polyisocyanate
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- IT 330192-14-8, L 1077
RL: TEM (Technical or engineered material use); USES (Uses)
(asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- IT **9003-17-2P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(butadiene rubber, hydroxy-terminated, R 45HT, reaction products with polyol and hydroxyalkyloxazolidine; asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- IT 28553-12-0, DINP
RL: MOA (Modifier or additive use); USES (Uses)
(plasticizer; asphalt compn. contg. polyurethane polyisocyanate prepolymer and plasticizer for room temp.-curable pavement with elasticity)
- L96 ANSWER 8 OF 29 WPIX (C) 2003 THOMSON DERWENT
AN 2000-594062 [56] WPIX
DNC C2000-177338
TI **Settable mixture as screed or for pointing**

*X.
applicant*

flooring, comprises **polybutadiene**, **flow enhancer** and dry particulate material containing specified amounts of **aluminum oxide** and **ferrous oxide**

DC A12 A93 L02
 IN POLLITT, C B
 PA (CAIR-N) CAIRN HOLDINGS UK LTD
 CYC 23
 PI WO 2000050355 A1 20000831 (200056)* EN 13p C04B026-04 <--
 RW: AT BE CH CY DE DK ES FI FR GB GR IE IT LU MC NL PT SE
 W: AU JP US ZA
 AU 2000025659 A 20000914 (200063) C04B026-04 <--
 EP 1156990 A1 20011128 (200201) EN C04B026-04 <--
 R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
 ADT WO 2000050355 A1 WO 2000-GB610 20000222; AU 2000025659 A AU 2000-25659
 20000222; EP 1156990 A1 EP 2000-903910 20000222, WO 2000-GB610 20000222
 FDT AU 2000025659 A Based on WO 200050355; EP 1156990 A1 Based on WO 200050355
 PRAI GB 1999-4279 19990225
 IC ICM C04B026-04
 AB WO 200050355 A UPAB: 20001106

NOVELTY - A **settable mixture** (Z) comprises:
 (a) **polybutadiene**;
 (b) a **flow enhancing** liquid; and
 (c) a dry particulate material containing not more than 2 weight percent (wt.%) **aluminum oxide** and not more than 1 wt.% **ferrous oxide**.

USE - The **settable mixture** is used indoors and outdoors, as a **screed**, or for laying or pointing a **paving** or **flooring** e.g. stones, cobbles, **sets**, **tiles**, concrete, clay or stone slabs or for laying wall **tiles** and bricks. The **mixture** is used as a filler to fill the gaps between the **tiles** and to stabilize the elements without sticking to the surfaces.

ADVANTAGE - The 90% silicon oxide of the **sand** content of the **mixture** ensures the following advantages:

- (i) staining of adjacent **paving** surfaces is minimized or eliminated;
- (ii) a chemical reaction within the bagged **mixture** which retards the **setting** time, is prevented;
- (iii) the reduction in shelf life of the bagging **mixture** by chemical reaction, is avoided;
- (iv) as the **setting** time is kept as short as possible, there is no necessity to keep the **mixture** dry for **setting**, for a considerable time after application; and
- (v) as the **setting** time is reduced, the **mixture** is used to fill deeper joints between **paving** without the risk of ingress of moisture from the ground.

Due to the **flow enhancing** liquid, the workability and cross-linking strengths within the **mixture** are improved. The liquid enhances the flexural and compressive strengths of the compound after **setting**. **Mixture** is particularly suitable for jointing and **screeding** in areas under extreme stress. The re-odorizer effectively reduces the unpleasant odor of **polybutadiene** and thus makes the **mixture** suitable for external applications. The colorant of the **mixture** eases the identity and enhances the aesthetic property of the **mixture**.

Dwg. 0/0

FS CPI

FA AB
 MC CPI: A04-B02; A08-E01; A08-M04; A08-R; A08-S02; A12-R03; A12-R08; L02-D01;
 L02-D09

L96 ANSWER 9 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:325886 HCAPLUS

DN 130:328270

TI Sprayable compositions and method for coating asbestos cement surfaces,
 especially roofing **tiles**, facade plates, and manufacture and use
 of the compositions

IN Eidenschink, Henning; Eidenschink, Marianne

PA Hema Beschichtungsservice, Germany

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA German

IC ICM C04B041-00

CC 58-4 (Cement, **Concrete**, and Related Building Materials)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|------------------|----------|
| PI | WO 9924378 | A2 | 19990520 | WO 1998-DE3383 | 19981110 |
| | WO 9924378 | A3 | 19990826 | | |
| | W: CZ, PL, SI | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | DE 19750769 | A1 | 19990520 | DE 1997-19750769 | 19971110 |
| | DE 19750769 | C2 | 20000914 | | |
| | EP 1028930 | A2 | 20000823 | EP 1998-963358 | 19981110 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| PRAI | DE 1997-19750769 | A | 19971110 | | |
| | WO 1998-DE3383 | W | 19981110 | | |
| AB | The compns., in the form of liq., soln., dispersion, or powder, contain .gtoreq.1 binders and .gtoreq.1 fillers. The compns. are manufd. by (1) mixing the binder powders and filler powders and adjusting its rheol. by adding water, or (2) mixing the binder liq., solvent, or dispersion, whose rheol. is adjusted by the solids content, with the fillers, or (3) mixing the org. binder liq., solvent, or dispersion, whose rheol. is adjusted by the solids content, with inorg. binders and fillers. The uncleaned asbestos cement surfaces are coated by spraying the surfaces with a com. algicide-fungicide soln., spray coating the surfaces with a com. penetrating primer to resinate any fungi, algae, lichens, moss, or loose material, esp. asbestos, applying the sprayable compn. by spraying, rolling, casting, brushing, or immersion, or by other means, to a thickness of .gtoreq.1 mm, and applying a colored finish. The compns. are used for preserving asbestos cement surfaces plaster, masonry, concrete, clay, metallic substrates, wood, org. substrates, e.g., plastic or tar, and mortar coatings and sealing sludges. The method is in compliance with the legal requirements of TRGS 519, whereby uncoated asbestos products can be coated but cannot be cleaned. | | | | |
| ST | sprayable compn asbestos cement surface coating; binder filler sprayable compn; plaster masonry concrete mortar coating; clay metallic substrate wood coating; org substrate plastic tar coating; primer coating fungi algae lichen moss resination | | | | |
| IT | Cement (construction material) (asbestos, uncleaned; sprayable compns. and method for coating of) | | | | |
| IT | Asphalt | | | | |

- Cement (construction material)
- Pitch
 - (binder, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Bitumens
 - Butadiene rubber, uses
 - Lime (chemical)
 - Natural rubber, uses
 - Polysiloxanes, uses
 - Silicone rubber, uses
 - Synthetic rubber, uses
 - Tar
 - Urethane rubber, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (binder, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Acrylic polymers, uses
 - Alkyd resins
 - Coumarone-indene resins
 - Epoxy resins, uses
 - Phenolic resins, uses
 - Polyesters, uses
 - Polyolefins
 - Polyurethanes, uses
 - Silicates, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Coating process
 - (blade; of uncleaned asbestos cement surfaces for containment)
- IT Slags
 - (blast-furnace, filler, sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)
- IT Fatty acids, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (branched fatty acids, vinyl esters, polymers, binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Styrene-butadiene rubber, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (carboxy-contg., binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Coating process
 - (cast; of uncleaned asbestos cement surfaces for containment)
- IT Wood
 - (chips, filler, sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)
- IT Alkanes, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (chloro, binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Solid wastes
 - (cork, filler, sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)
- IT Vinyl compounds, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (ester group-contg., polymers, acrylates and propionates, binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos

cement surfaces after priming)

IT Slate
 (expanded, filler, sprayable compns. contg. binders and; for coating
 uncleaned asbestos cement surfaces after priming)

IT Clays, uses
 Lava
 Mica-group minerals, uses
 Perlite
 RL: TEM (Technical or engineered material use); USES (Uses)
 (expanded, filler, sprayable compns. contg. binders and; for coating
 uncleaned asbestos cement surfaces after priming)

IT Construction materials
 (facades, asbestos cement, uncleaned, primed; sprayable compns. and
 method for coating of)

IT Sawdust
 Slags
 (filler, sprayable compns. contg. binders and; for coating uncleaned
 asbestos cement surfaces after priming)

IT Chalk
 Diatomite
 Fibers
 Foamed glass
 Glass microspheres
 Pumice
Sand
 RL: TEM (Technical or engineered material use); USES (Uses)
 (filler, sprayable compns. contg. binders and; for coating uncleaned
 asbestos cement surfaces after priming)

IT Mica-group minerals
 (fillers, sprayable compns. contg. binders and; for coating uncleaned
 asbestos cement surfaces after priming)

IT Paper
 (flour, filler, sprayable compns. contg. binders and; for coating
 uncleaned asbestos cement surfaces after priming)

IT Cork
 (granular, filler, sprayable compns. contg. binders and; for coating
 uncleaned asbestos cement surfaces after priming)

IT Coating process
 (immersion; of uncleaned asbestos cement surfaces for containment)

IT Solid wastes
 Solid wastes
 (leather, filler, sprayable compns. contg. binders and; for coating
 uncleaned asbestos cement surfaces after priming)

IT Asbestos
 RL: TEM (Technical or engineered material use); USES (Uses)
 (loose, resinating of; on uncleaned asbestos cement surfaces for
 coating with sprayable compns.)

IT Fillers
 (mica, sprayable compns. contg. binders and; for coating uncleaned
 asbestos cement surfaces after priming)

IT Liquids
 (oils, synthetic and natural, binders, sprayable compns. contg. fillers
 and; for coating uncleaned asbestos cement surfaces after priming)

IT Concrete
 Masonry
 Mortar
 Plaster
 Wood

- (preservation of; sprayable compns. and method for coating of)
- IT Metals, uses
 - Plastics, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (preservation of; sprayable compns. and method for coating of)
- IT Algae
 - Fungi
 - Lichen
 - Moss
 - (resinating of; on uncleaned asbestos cement surfaces for coating with sprayable compns.)
- IT Resins
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (resinating with; of uncleaned asbestos cement surfaces for coating with sprayable compns.)
- IT Hydrocarbons, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (resins, binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Coating process
 - (roller; of uncleaned asbestos cement surfaces for containment)
- IT **Tiles**
 - (roofing, asbestos cement, uncleaned, primed; sprayable compns. and method for coating of)
- IT Cellular materials
 - (**sand**, filler, sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)
- IT Coating process
 - (spray; of uncleaned asbestos cement surfaces for containment)
- IT Fillers
 - (sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)
- IT Binders
 - (sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Acrylic polymers, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (styrene-contg., binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Roofing
 - (**tiles**, asbestos cement, uncleaned, primed; sprayable compns. and method for coating of)
- IT Ethers, uses
 - Ethers, uses
 - RL: TEM (Technical or engineered material use); USES (Uses)
 - (vinyl, polymers, binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)
- IT Leather
 - Leather
 - Tiles**
 - (waste, filler, sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)
- IT 1344-09-8, Water glass 5593-70-4 9002-86-2, Vinyl chloride homopolymer 9002-88-4, Polyethylene **9003-17-2, Polybutadiene** 9003-20-7, Polyvinyl acetate 9003-54-7, Acrylonitrile-styrene copolymer 24937-78-8, Ethylene-vinyl acetate copolymer 26246-91-3, Polyvinyl laurate
 - RL: TEM (Technical or engineered material use); USES (Uses)

(binder, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)

IT 79-10-7D, Acrylic acid, esters, polymers 1343-98-2D, Silicic acid, alkyl esters 9003-55-8D, Butadiene-styrene copolymer, carboxylated
 RL: TEM (Technical or engineered material use); USES (Uses)
 (binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)

IT 9003-17-2
 RL: TEM (Technical or engineered material use); USES (Uses)
 (butadiene rubber, binder, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)

IT 1302-74-5, Corundum, uses 7727-43-7, Barium sulfate 14807-96-6, Talc, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (filler, sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)

IT 14808-60-7, Quartz, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (flour, filler, sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)

IT 9003-53-6, Styropor
 RL: TEM (Technical or engineered material use); USES (Uses)
 (foam, filler, sprayable compns. contg. binders and; for coating uncleaned asbestos cement surfaces after priming)

IT 9003-55-8
 RL: TEM (Technical or engineered material use); USES (Uses)
 (styrene-butadiene rubber, carboxy-contg., binders, sprayable compns. contg. fillers and; for coating uncleaned asbestos cement surfaces after priming)

L96 ANSWER 10 OF 29 HCAPLUS COPYRIGHT 2003 ACS DUPLICATE 1

AN 1998:341523 HCAPLUS

DN 129:16908

TI **Mixtures of polybutadiene materials settable**
 on exposure to atmosphere

IN Pollitt, Clifford Bruce

PA Cairn Holdings (UK), UK; Pollitt, Clifford Bruce

SO PCT Int. Appl., 14 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C04B026-04

ICS C04B026-04; C04B014-06; C04B014-10; C04B014-22; C04B024-08;

C04B024-36; C04B040-06

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 58

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9821159 | A1 | 19980522 | WO 1997-GB3125 | 19971113 |
| W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |

| | | | | |
|------------|----|----------|----------------|----------|
| AU 9749580 | A1 | 19980603 | AU 1997-49580 | 19971113 |
| EP 958257 | A1 | 19991124 | EP 1997-912345 | 19971113 |

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, FI

| | |
|--------------------|----------|
| PRAI GB 1996-23568 | 19961113 |
| GB 1997-2014 | 19970131 |
| WO 1997-GB3125 | 19971113 |

AB The **mixt.**, useful as a substrate **screed** and/or filler for **paving**, wall and **floor** elements such as **tiles**, cobbles, concrete slabs. comprises liq. **polybutadiene** (I), a **flow-enhancing** liq., and particulate material. The **mixt.** can be bagged in a substantially oxygen-free atm. ready for use. Thus, a sample was prepd. from a **mixt.** of I, aroma-free benzene and **silica sand**.

ST pavement wall **floor** element **sand polybutadiene** ; **silica** filler **polybutadiene** pavement road

IT Construction materials

Floors

Paving materials

Tiles

Walls (construction)

(**mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

IT Cobbles

RL: IMF (Industrial manufacture); PREP (Preparation)

(**mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

IT Glass, uses

RL: MOA (Modifier or additive use); USES (Uses)

(**mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

IT **Sand**

RL: MOA (Modifier or additive use); USES (Uses)

(**mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

IT Hydrocarbons, uses

RL: NUU (Other use, unclassified); USES (Uses)

(**mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

IT Concrete

(slabs; **mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

IT Fats and Glyceridic oils, uses

RL: NUU (Other use, unclassified); USES (Uses)

(vegetable; **mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

IT 71-43-2, Benzene, uses

RL: NUU (Other use, unclassified); USES (Uses)

(**mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

IT **9003-17-2, Polybutadiene**

RL: TEM (Technical or engineered material use); USES (Uses)

(**mixts.** of **polybutadiene** materials **settable** on exposure to atm.)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Elsner, W; EP 0294501 A 1988 HCAPLUS

- (2) Grishaev, I; SU 1189745 A
- (3) Guelts, V; DE 4035359 C 1992 HCAPLUS
- (4) Mack, A; DE 4101032 A 1992 HCAPLUS
- (5) Marquardt, G; EP 0146098 A 1985 HCAPLUS

L96 ANSWER 11 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:684891 HCAPLUS

DN 129:277277

TI Binding **mixtures** for **sand** and glass powder

IN Pollitt, Clifford Bruce

PA Cairn Holdings (UK) Ltd., UK

SO PCT Int. Appl., 7 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08L009-00

ICS C04B026-04; E01C005-00

CC 39-14 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | WO 9844033 | A1 | 19981008 | WO 1998-GB937 | 19980325 |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | AU 9868451 | A1 | 19981022 | AU 1998-68451 | 19980325 |
| | EP 909293 | A1 | 19990421 | EP 1998-913931 | 19980325 |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | CN 1220680 | A | 19990623 | CN 1998-800374 | 19980325 |
| | BR 9806198 | A | 20000314 | BR 1998-6198 | 19980325 |
| | JP 2000511590 | T2 | 20000905 | JP 1998-541297 | 19980325 |
| PRAI | GB 1997-6380 | A | 19970327 | | |
| | WO 1998-GB937 | W | 19980325 | | |
| AB | A binding mixt. is intended primarily for binding sand or ground glass particles used, for example, as a filler material between paving elements to penetrate the filler material and make the joint rigid, and comprises 20-40% of a polybutadiene , at least a substantial proportion of the remainder being a flow-enhancing solvent with additives, if required, for coloring and deodorizing the mixt. | | | | |
| ST | sand glass filler polybutadiene binder; flow improver | | | | |
| | sand glass binder | | | | |
| IT | Grout | | | | |
| | (binding mixts. for) | | | | |
| IT | Glass, miscellaneous | | | | |
| | Sand | | | | |
| | RL: MSC (Miscellaneous) | | | | |
| | (binding mixts. for) | | | | |
| IT | Binders | | | | |
| | (binding mixts. for sand or glass) | | | | |
| IT | Paving materials | | | | |
| | (binding mixts. for sand or glass for filling | | | | |

joints of)
 IT Flow
 (improvers; in binding **mixts.** for **sand** or glass)
 IT Solvents
 (in binding **mixts.** for **sand** or glass)
 IT Hydrocarbons, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (solvent; in binding **mixts.** for **sand** or glass)
 IT **9003-17-2, Polybutadiene**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (binding **mixts.** for **sand** or glass)
 RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Claude, P; FR 2584065 A 1987 HCAPLUS
 (2) Guls, V; DE 4035359 C 1992 HCAPLUS
 (3) Manfred, S; DE 4421970 A 1995 HCAPLUS

L96 ANSWER 12 OF 29 HCAPLUS COPYRIGHT 2003 ACS
 AN 1999:78932 HCAPLUS
 DN 130:96779

TI **Settable mixtures of polybutadiene and**
 ground glass

IN Pollitt, Clifford Bruce
 PA Cairn Holdings (UK) Ltd., UK
 SO Brit. UK Pat. Appl., 8 pp.
 CODEN: BAXXDU

DT Patent
 LA English
 IC ICM C08L009-00
 ICS C08K003-40; E01C007-00
 CC 39-15 (Synthetic Elastomers and Natural Rubber)
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--------------|------|----------|-----------------|----------|
| PI | GB 2322630 | A1 | 19980902 | GB 1998-4106 | 19980227 |
| PRAI | GB 1997-4067 | | 19970227 | | |

AB The **mixts.** useful as fillers or **screeds** for securing
paving and **flooring** comprise **polybutadiene** and
 ground glass and optionally contain **sand** and **flow**
enhancing solvent. The **mixts.** are preferably bagged so
 as to be contained in an essentially O-free atm. for prolonging storage
 and shelf life.

ST **paving** filler **settable polybutadiene** ground
 glass **mixt**; **floor** filler **settable**
polybutadiene ground glass **mixt**; **sand** ground
 glass **polybutadiene settable mixt**; butadiene
 rubber ground glass **mixt paving** filler

IT Fillers
 Floors
 Paving materials
 (**settable mixts.** of **polybutadiene** and
 ground glass)

IT **Sand**
 RL: MOA (Modifier or additive use); USES (Uses)
 (**settable mixts.** of **polybutadiene** and
 ground glass)

IT Glass, uses
 RL: TEM (Technical or engineered material use); USES (Uses)

(settable mixts. of polybutadiene and
ground glass)

IT 9003-17-2, Univest

RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)

(settable mixts. of polybutadiene and
ground glass)

L96 ANSWER 13 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:740107 HCAPLUS

DN 128:7339

TI Delivery device

IN Graham, Neil Bonnette

PA University of Strathclyde, UK; Graham, Neil Bonnette

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM A61K009-22

CC 63-6 (Pharmaceuticals)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | WO 9740822 | A2 | 19971106 | WO 1997-GB1192 | 19970430 |
| | WO 9740822 | A3 | 19980219 | | |
| | W: US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | EP 910347 | A2 | 19990428 | EP 1997-918279 | 19970430 |
| | R: CH, DE, FR, GB, IT, LI | | | | |
| PRAI | GB 1996-9094 | | 19960501 | | |
| | WO 1997-GB1192 | | 19970430 | | |
| AB | The invention relates to a delivery device under osmotic control when in contact with a liq. comprising an enclosure having an enclosure wall and at least an aperture through the wall, wherein the osmotically active material is present within the enclosure, and the apertures being sized such that when the device is in contact with liq., osmotically controlled flow of soln. from the enclosure through the aperture occurs. | | | | |
| ST | drug delivery system osmotic control | | | | |
| IT | Polymers, biological studies | | | | |
| | RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) | | | | |
| | (co-; delivery device under osmotic control) | | | | |
| IT | Osmosis | | | | |
| | Porosity | | | | |
| | (delivery device under osmotic control) | | | | |
| IT | Acrylic polymers, biological studies | | | | |
| | Fluoropolymers, biological studies | | | | |
| | Natural rubber, biological studies | | | | |
| | Polyamides, biological studies | | | | |
| | Polycarbonates, biological studies | | | | |
| | Polymers, biological studies | | | | |
| | Polysiloxanes, biological studies | | | | |
| | Polysulfones, biological studies | | | | |
| | Polyurethanes, biological studies | | | | |
| | Synthetic rubber, biological studies | | | | |
| | RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) | | | | |
| | (delivery device under osmotic control) | | | | |
| IT | Drug delivery systems | | | | |

(granules; delivery device under osmotic control)
 IT Drug delivery systems
 (pessary; delivery device under osmotic control)
 IT Alkanes, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (poly-; delivery device under osmotic control)
 IT Esters, biological studies
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polyvinyl; delivery device under osmotic control)
 IT Drug delivery systems
 (suppositories; delivery device under osmotic control)
 IT Drug delivery systems
 (tablets; delivery device under osmotic control)
 IT 78-79-5D, copolymer 106-99-0D, 1,3-Butadiene, copolymer, biological
 studies 115-11-7D, copolymer **1344-28-1, Alumina**,
 biological studies 9002-84-0, Polytetrafluoroethylene 9002-88-4,
 Polyethylene 9003-07-0, Polypropylene **9003-17-2**, Butadiene
 homopolymer 9003-27-4, Isobutene homopolymer 9003-31-0, Isoprene
 homopolymer 9003-53-6, Polystyrene 9004-34-6, Cellulose, biological
 studies 19326-29-5 24937-78-8, Ethylene-vinyl acetate copolymer
 24937-79-9, Polyvinylidene fluoride
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (delivery device under osmotic control)

L96 ANSWER 14 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1996:593358 HCAPLUS

DN 125:228960

TI Urethane polymer-containing cement compositions for **floors**

IN Kawazoe, Niro; Kamemura, Ichiro; Tashiro, Yasunori

PA Asahi Glass Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C04B028-02

ICS C04B024-22; C04B024-28

ICI C04B028-02, C04B024-28, C04B024-22, C04B014-06; C04B103-30, C04B103-40,
 C04B111-60

CC 58-1 (Cement, **Concrete**, and Related Building Materials)

Section cross-reference(s): 38

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | JP 08169744 | A2 | 19960702 | JP 1994-311758 | 19941215 |
| PRAI | JP 1994-311758 | | 19941215 | | |
| AB | The compns. comprise hydraulic cement, water, water reducing agent, and a component to be converted into resin by hardening. A mixt. of portland cement 150, Mighty 100 1.5, sand 350, Uric H 30 50, Bu benzyl phthalate (plasticizer) 25, water 30, and MR 100 (crude MDI) 100 wt. parts gave a well-dispersed rapid-setting mortar having excellent trowelability. | | | | |
| ST | cement plasticizer urethane polymer; polyol isocyanate urethane polymer | | | | |
| IT | Floors (cement compns. contg. urethane polymer and plasticizer for workability) | | | | |
| IT | Urethane polymers, uses RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses) | | | | |

(cement compns. contg. urethane polymer and plasticizer for workability)

IT Rubber, butadiene, uses
 RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)
 (hydroxy-terminated, Poly bd-R 45HT, polymers with Millionate MTL; cement compns. contg. urethane polymer and plasticizer for workability)

IT Carboxylic acids, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (poly-, cement compns. contg. urethane polymer and plasticizer for workability)

IT Cement
 (portland, cement compns. contg. urethane polymer and plasticizer for workability)

IT Plasticizers
 (super-, cement compns. contg. urethane polymer and plasticizer for workability)

IT 121-47-1, 3-Anilinesulfonic acid 8062-15-5, Lignosulfonic acid 9003-35-4, Formaldehyde-phenol copolymer 36290-04-7, Mighty 100 50851-57-5, Polystyrenesulfonic acid 64787-97-9D, salts 181658-88-8, Mighty 2000R
 RL: MOA (Modifier or additive use); USES (Uses)
 (cement compns. contg. urethane polymer and plasticizer for workability)

IT 61089-52-9D, Millionate MTL, polymers with hydroxy-terminated **polybutadiene** rubber 96211-18-6
 RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)
 (cement compns. contg. urethane polymer and plasticizer for workability)

IT **9003-17-2**
 RL: MOA (Modifier or additive use); POF (Polymer in formulation); USES (Uses)
 (rubber, hydroxy-terminated, Poly bd-R 45HT, polymers with Millionate MTL; cement compns. contg. urethane polymer and plasticizer for workability)

L96 ANSWER 15 OF 29 HCAPLUS COPYRIGHT 2003 ACS
 AN 1995:979000 HCAPLUS
 DN 123:348286
 TI Supports for **tiled** terraces and balconies
 IN Quittmann, Juergen
 PA Gerfinex-Jackson GmbH, Germany
 SO Ger. Offen., 4 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC ICM E04F015-08
 ICS E04F015-12; C09K003-10; B32B005-30; B32B005-18
 ICA C08L009-00; B32B025-02; B32B025-08
 ICI C08K003-36, C08K007-18
 CC 58-4 (Cement, **Concrete**, and Related Building Materials)
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | DE 4415534 | A1 | 19951109 | DE 1994-4415534 | 19940503 |
| PRAI | DE 1994-4415534 | | 19940503 | | |
| AB | The supports, comprising a seal and a supporting layer above te seal, | | | | |

addnl. comprise a **sand-polybutadiene oil mixt**
 . underneath the **tiles** and/or under the seal. This arrangement
 prevents frost damage and efflorescence.

ST support **tile** terrace balcony; **sand**
polybutadiene oil support; plastic foam plate support

IT **Sand**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (admixts. with **polybutadiene** oil; **mixt.** layer in
 support structure for **tiled** terraces and balconies for frost
 damage and efflorescence prevention)

IT Buildings
 (balconies; **mixt.** layer in support structure for
tiled terraces and balconies for frost damage and efflorescence
 prevention)

IT Plates and Trays
 (cellular plastics; **mixt.** layer in support structure for
tiled terraces and balconies for frost damage and efflorescence
 prevention)

IT Plastics, cellular
 RL: TEM (Technical or engineered material use); USES (Uses)
 (plates; **mixt.** layer in support structure for **tiled**
 terraces and balconies for frost damage and efflorescence prevention)

IT Soils
 (terrace, **sand-polybutadiene oil mixt.**
 layer in support structure for **tiled** terraces and balconies
 for frost damage and efflorescence prevention)

IT **9003-17-2, Polybutadiene**
 RL: TEM (Technical or engineered material use); USES (Uses)
 (oil, admixts. with **sand**; **mixt.** layer in support
 structure for **tiled** terraces and balconies for frost damage
 and efflorescence prevention)

L96 ANSWER 16 OF 29 WPIX (C) 2003 THOMSON DERWENT
 AN 1995-037429 [06] WPIX
 DNC C1995-016773

TI Jointing cement for paving stones etc. - contains sharp sand and superfine
 sand with defined particle size ranges, and **polybutadiene**-based
 binder, giving low cost **grouting** material.

DC A12 A93 L02
 IN STEIDLE-SAILER, M; WAGNER, J
 PA (STEI-I) STEIDLE-SAILER M
 CYC 1

PI DE 4421970 A1 19950105 (199506)* 4p C04B026-02 <--
 ADT DE 4421970 A1 DE 1994-4421970 19940623
 PRAI DE 1993-4321281 19930626

IC ICM **C04B026-02**
 ICS **C04B014-06; C04B026-04**

AB DE 4421970 A UPAB: 19950214
 A jointing cement (I) comprises a hardening **mixt.** comprising:
 (A) 75-90 (pref. 80) wt.% sharp sand, of which 40-60 (pref. 40-50) wt.%
 has a particle size of 0.1-0.45 mm; (B) 5-12 (pref. 10) wt.% superfine
 sand with a particle size of 0.063-0.25 mm; and (C) 5-12 (pref. 10) wt.%
 polymer binder.
 USE - Used for **grouting** natural or artificial stone paving
 with joints more than 0.5 cm wide and at least 3 cm deep (claimed).
 ADVANTAGE - A low-cost, plastic-bonded **grouting** material is
 provided which is rapidly **mixed** and easily worked, relatively
 insensitive to rain etc., and completely fills the joint cavities with its

particles of different size ranges. The set material is up to twice as hard as conventional materials, and is resistant to frost, condensation salts, petrol, acid, alkali, and the action of sweeping or suction machines.

Dwg.0/0

FS CPI

FA AB

MC CPI: A04-B02; A12-R08; A12-R09; L02-D01

L96 ANSWER 17 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1995:488081 HCAPLUS

DN 122:216850

TI Production of chemical **grouting** material from isocyanate residue

IN Zhu, Wanzhang; Zhang, Xishi; Hu, Zongxian

PA Marine Coating Institute, Ministry of Chemical Industry, Peop. Rep. China

SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 9 pp.

CODEN: CNXXEV

DT Patent

LA Chinese

IC ICM C08L075-04

CC 42-11 (Coatings, Inks, and Related Products)

Section cross-reference(s): 60

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | CN 1082566 | A | 19940223 | CN 1992-106672 | 19920817 |
| | CN 1036277 | B | 19971029 | | |
| PRAI | CN 1992-106672 | | 19920817 | | |
| AB | The grouting material are prepd. from 10-70% isocyanate residues selected from residues of toluene diisocyanate, di-Ph diisocyanate, isophorone diisocyanate, phenylene diisocyanate, hexamethylene diisocyanate, naphthalene diisocyanate, and polyphenylpolymethylene polyisocyanate, and 30-90% hydroxy compds. selected from polyether, polyester, polybutadiene , alkyd resin, and polypropylene. The grouting process is carried out by mixing the two components and solidifying at atm. temp. | | | | |
| ST | isocyanate residue grouting material; polyurethane grout waste isocyanate polyol | | | | |
| IT | Grout Recycling of plastics and rubbers (prodn. of chem. grouting material from isocyanate residue) | | | | |
| IT | Urethane polymers, uses RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (prodn. of chem. grouting material from isocyanate residue) | | | | |
| IT | 822-06-0, Hexamethylene diisocyanate 2761-22-0, Biphenyl 4,4'-diisocyanate 4098-71-9, Isophorone diisocyanate 9016-87-9, Polyphenylpolymethylene polyisocyanate 25551-28-4, Naphthalene diisocyanate 26471-62-5, Toluene diisocyanate 27359-20-2, Phenylene diisocyanate RL: PEP (Physical, engineering or chemical process); RCT (Reactant); TEM (Technical or engineered material use); PROC (Process); RACT (Reactant or reagent); USES (Uses) (prodn. of chem. grouting material from isocyanate residue) | | | | |

L96 ANSWER 18 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1993:677628 HCAPLUS

DN 119:277628
 TI Manufacture of high-temperature storable bitumens for pavements and roads,
 and use of the bitumens obtained
 IN Schmidt, Peter; Peter, Julius
 PA Gummiwerk Kraiburg Development GmbH, Germany
 SO Eur. Pat. Appl., 7 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 IC ICM C08L095-00
 ICS C08L009-06; C08L017-00; C08L023-06
 CC 58-4 (Cement, **Concrete**, and Related Building Materials)
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|----------|
| PI | EP 557923 | A1 | 19930901 | EP 1993-102740 | 19930222 |
| | R: DE, FR, GB, IT | | | | |
| | DE 4221557 | A1 | 19930902 | DE 1992-4221557 | 19920701 |
| PRAI | DE 1992-4206119 | | 19920227 | | |
| | DE 1992-4221557 | | 19920701 | | |
| AB | The process comprises mixing the bitumen with a mixt. of polymers and fillers, which mixt. is obtained by mixing natural, synthetic and/or recovered rubber having dielec. const. .ltoreq.3.0, with .gtoreq.1 thermoplastics and fillers. A mixt. consisting of 100 wt. parts styrene-contg. rubber powder, obtained by milling discarded treads of armored vehicles to particle size 1-7 mm, and 50 wt. parts emulsion polymer consisting of 85% styrene and 15% butadiene was heated 1t 220-250.degree. for 5 min, and mixed with bitumen of 150.degree. in bitumen/ mixt. wt. 19:1 to give bitumen for asphalt having high cold and hot strength. | | | | |
| ST | bitumen polymer filler asphalt pavement; waste rubber butadiene styrene polymer; isoprene rubber carbon black asphalt | | | | |
| IT | Polymers, uses Rubber, butadiene, uses Rubber, butadiene-styrene, uses Rubber, ethylene-propene Rubber, isoprene, uses Rubber, natural, uses Rubber, synthetic RL: USES (Uses) (bitumens contg. fillers and, manuf. of, for high-temp. storability) | | | | |
| IT | Asphalt RL: USES (Uses) (bitumens for, manuf. of high-temp. storable, polymers and fillers for) | | | | |
| IT | Carbon black, uses Chalk Kaolin, uses RL: USES (Uses) (filler, bitumens contg. polymers and, manuf. of, for high-temp. storability) | | | | |
| IT | Bitumens RL: USES (Uses) (manuf. of high-temp. storable, mixts. of polymers and fillers for, for paving) | | | | |
| IT | Recycling (of thermoplastics and rubber, in high-temp. storable bitumens manuf. for paving) | | | | |
| IT | Extrusion apparatus | | | | |

(single- and twin-screw, **mixing** in, in high-temp. storable bitumen manuf. for pavements)

IT Vehicles
(armored, waste rubber from treads of, bitumens contg. fillers and, manuf. of, for high-temp. storability)

IT **Mixing** apparatus
(extruders, single- and twin-screw, in high-temp. storable bitumen manuf. for pavements)

IT Rubber, synthetic
RL: USES (Uses)
(isobutylene, bitumens contg. fillers and, manuf. of, for high-temp. storability)

IT Wastes
(petroleum-refinery, bitumens contg. fillers and, manuf. of, for high-temp. storability)

IT Alkenes, polymers
RL: USES (Uses)
(polymers, bitumens contg. fillers and, manuf. of, for high-temp. storability)

IT Waste solids
(thermoplastics, bitumens contg. fillers and, manuf. of, for high-temp. storability)

IT 9002-88-4P, Polyethylene 9003-07-0P, Polypropylene 9003-53-6P, Polystyrene 9003-55-8P, Butadiene-styrene copolymer
RL: PREP (Preparation)
(bitumens contg. fillers and, manuf. of, for high-temp. storability)

IT **7631-86-9P, Silica**, uses 7727-43-7P, Barium sulfate
RL: PREP (Preparation); USES (Uses)
(filler, bitumens contg. polymers and, manuf. of, for high-temp. storability)

IT **9003-17-2P** 9003-31-0P 9003-55-8P 9010-79-1P
RL: PREP (Preparation)
(rubber, bitumens contg. fillers and, manuf. of, for high-temp. storability)

L96 ANSWER 19 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1991:477483 HCAPLUS

DN 115:77483

TI Castable material comprising polymer-modified bitumen and, optionally, fillers, for horizontal expansion joints

IN Kahlert, Erwin; Kreis, Johannes; Lier, Werner; Possoegel, Wolfgang; Bischof, Gerhard; Heinrich, Peter; Reinwarth, Kurt; Buechner, Hartmut; Salzmann, Joachim

PA VEB Hydrierwerk Zeitz, Germany

SO Ger. (East), 4 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM C08L095-00

ICS E04B001-68

CC 58-4 (Cement, **Concrete**, and Related Building Materials)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | DD 289052 | A5 | 19910418 | DD 1989-334502 | 19891113 |
| PRAI | DD 1989-334502 | | 19891113 | | |
| AB | The polymer-modified bitumen is prepd. from a mixt. of bitumen (softening point 38-80.degree., resin content .gtoreq.25) 67-94 | | | | |

polybutadiene (no. av. mol. wt. 2000-10,000; I no. 350-450 g I/100 g; viscosity at 20.degree. 1-250 Pa.s) 1.8-20, and S 0.2-3.0 wt.%, by stirring the **mixts.** at 160-230.degree. for up to 6 h. These compns. are esp. suitable for expansion joints in pavements.

ST polymer modified bitumen expansion joint; pavement expansion joint bitumen filler

IT Rubber, synthetic

RL: USES (Uses)

(bitumens modified with sulfur and, castable compns. contg. fillers and, for expansion joints for pavements)

IT Expansion joints

(bituminous compns. for, castable, polymer-modified bitumens and fillers for, for pavements)

IT Slate

Limestone, uses and miscellaneous

Minerals

RL: USES (Uses)

(**flows**, filler, bituminous compns. contg. polymer-modified bitumens and, castable, for expansion joints for pavements)

IT Bitumens

RL: USES (Uses)

(polymer-modified, castable compns. contg., for expansion joints for pavements)

IT 7704-34-9, Sulfur, uses and miscellaneous

RL: USES (Uses)

(bitumens modified with **polybutadiene** and, castable compns. contg. fillers and, for expansion joints for pavements)

IT **9003-17-2, Polybutadiene**

RL: USES (Uses)

(bitumens modified with sulfur and, castable compns. contg. fillers and, for expansion joints for pavements)

L96 ANSWER 20 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1991:477484 HCAPLUS

DN 115:77484

TI Plastic bituminous sealing compositions polymer-modified bitumen, fibers, and fillers, for **grouting**

IN Kahlert, Erwin; Kreis, Johannes; Lier, Werner; Schilbach, Wolfgang;

Oberlaender, Rainer; Buechner, Hartmut; Reinwarth, Kurt; Salzmann, Joachim

PA VEB Hydrierwerk Zeitz, Germany

SO Ger. (East), 4 pp.

CODEN: GEXXA8

DT Patent

LA German

IC ICM C08L095-00

ICS C09D005-34; E04B001-68

CC 58-4 (Cement, **Concrete**, and Related Building Materials)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|----------|
| PI | DD 289051 | A5 | 19910418 | DD 1989-334501 | 19891113 |
| PRAI | DD 1989-334501 | | 19891113 | | |

AB The compns. contain a polymer-modified bitumen prepd. from a **mixt**

. of bitumen (softening **point** 38-80.degree. resin content

.gtoreq.25) 67-98, **polybutadiene** (no. av. mol. wt. 2000-10,000;

I no. 350-450 g I/100 g; viscosity at 20.degree. 1-200 Pa.s) 18-30, and S 0.2-3.0 wt.%, by stirring the **mixt.** at 160-230.degree. for up to

8 h.

ST polymer modified bitumen fiber filler; putty plastic bitumen
 IT Putty
 (bituminous, polymer-modified bitumen and fibers in compns. for, for
 crack-filling)
 IT Slate
 Limestone, uses and miscellaneous
 RL: USES (Uses)
 (flow, filler, bituminous compns. contg. polymer-modified
 bitumens and fillers and, for crack-filling)
 IT Bitumens
 RL: USES (Uses)
 (polymer-modified, plastic bituminous compns. contg. fibers and fillers
 and, for crack-filling)
 IT 9003-17-2, Polybutadiene
 RL: USES (Uses)
 (bitumen-modified with sulfur and, plastic bituminous compns. contg.
 fibers and fillers and, for crack-filling)
 IT 7704-34-9, Sulfur, uses and miscellaneous
 RL: USES (Uses)
 (bitumens modified with polybutadiene and, plastic bituminous
 compns. contg. fibers and fillers and, for crack-filling)

L96 ANSWER 21 OF 29 HCAPLUS COPYRIGHT 2003 ACS
 AN 1989:579833 HCAPLUS
 DN 111:179833
 TI Bituminous compositions and their preparation
 IN Futamura, Shingo; Tveekrem, James O.
 PA Firestone Tire and Rubber Co., USA
 SO Eur. Pat. Appl., 11 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C08L095-00
 ICI C08L095-00, C08L023-02, C08L053-02
 CC 58-4 (Cement, Concrete, and Related Building Materials)
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------------------------------|------|----------|-----------------|----------|
| PI | EP 329836 | A2 | 19890830 | EP 1988-119683 | 19881125 |
| | EP 329836 | A3 | 19910109 | | |
| | EP 329836 | B1 | 19940601 | | |
| | R: BE, CH, DE, FR, GB, IT, LI, NL, SE | | | | |
| | CA 1327660 | A1 | 19940308 | CA 1988-586371 | 19881219 |
| | ZA 8900267 | A | 19891025 | ZA 1989-267 | 19890112 |
| | JP 01217069 | A2 | 19890830 | JP 1989-20932 | 19890201 |
| | US 4973615 | A | 19901127 | US 1990-477003 | 19900207 |
| PRAI | US 1988-160445 | | 19880225 | | |
| | US 1989-369782 | | 19890622 | | |

AB The title bituminous compns. comprise a blend of (a) bitumens approx.
 40-98, (b) polyolefin approx. 1-30, and (c) thermoplastic elastomer contg.
 .gtoreq.2 polymer blocks, one of which is a cryst. polymer block having Tm
 (m.p.) >40.degree., and one of which is an amorphous polymer block having
 Tg (glass transition temp.) .ltoreq.0.degree.. These compns. have good
 low- and high-temp. properties, solvent and weather resistance,
 dimensional stability, uniformity of properties, and homogeneity, and are
 esp. useful in so-called built-up-roofing, and as paving and
 adhesive materials. A mixt. of AC-20 petroleum asphalt 81.8,
 (described) diblock elastomer consisting of a polybutadiene

block and a hydrogenated block of butadiene-styrene copolymer 11.1, high-d. polyethylene (melt index 40; d. 0.951 g/cm³) 2.4, and paraffin oil 4.7 wt.% had (ring-and-ball) softening **point** 110, vertical hot flow temp. 115, and low-temp. blend failure -22.5.degree., vs. 97, 100, and -25.degree., resp., for a blend without high-d. polyethylene.

ST bitumen **paving** roofing; butadiene block elastomer bitumen; hydrogenated butadiene styrene block elastomer; block elastomer bitumen; polyethylene bitumen

IT Paraffin oils
 RL: USES (Uses)
 (bituminous compns. contg., with high-d. polyethylene for improved high- and low-temp. properties)

IT Pavements and Roads
 Roofing
 (bituminous compns. for, with high-d. polyethylene for improved high- and low-temp. properties)

IT Asphalt
 RL: USES (Uses)
 (**paving** and roofing compns. contg., with high-d. polyethylene for improved high- and low-temp. properties)

IT Tar
 RL: USES (Uses)
 (coal, **paving** and roofing compns. contg., with high-d. polyethylene for improved high- and low-temp. properties)

IT Alkenes, uses and miscellaneous
 RL: USES (Uses)
 (poly-, bituminous compns. contg., for improved high- and low-temp. properties)

IT Rubber, synthetic
 RL: USES (Uses)
 (thermoplastic, diblock, butadiene-hydrogenated butadiene-styrene copolymer, bituminous compns. contg., with high-d. polyethylene for improved high- and low-temp. properties)

IT 9003-07-0, Polypropene
 RL: USES (Uses)
 (atactic and isotactic, bituminous compns. contg., for improved high- and low-temp. properties)

IT 106-99-0D, 1,3-Butadiene, diblock copolymer with hydrogenated butadiene-styrene
 RL: USES (Uses)
 (bituminous compns. contg., with high-d. polyethylene for improved high- and low-temp. properties)

IT 9002-88-4, Polyethylene
 RL: USES (Uses)
 (high-d., isotactic, bituminous compns. contg., for improved high- and low-temp. properties)

L96 ANSWER 22 OF 29 HCAPLUS COPYRIGHT 2003 ACS
 AN 1984:90411 HCAPLUS
 DN 100:90411
 TI Asphalt **mixtures** for **paving**
 PA Mitsui Doro K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 4 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC C08L095-00
 ICI C08L095-00, C08L075-04

CC 58-4 (Cement, **Concrete**, and Related Building Materials)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 58171444 | A2 | 19831008 | JP 1982-43713 | 19820320 |
| | JP 60030709 | B4 | 19850718 | | |
| PRAI | JP 1982-43713 | | 19820320 | | |

AB **Paving** compns. are prepd. from aggregates, **sand**, asphalt, stone powder, and moisture-curable prepolymers, e.g., **polybutadiene** prepolymer contg. isocyanate groups. The **flow** resistance and wear resistance are increased.

ST asphalt **mixt paving**

IT Pavements and Roads

(isocyanate-contg. **polybutadiene** moisture-curable prepolymers in, for **flow** and wear resistance)

IT **9003-17-2D**, isocyanate-contg.

RL: USES (Uses)

(moisture-curable prepolymers of, in asphalt **paving** compns. for **flow** and wear resistance)

L96 ANSWER 23 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1984:56059 HCAPLUS

DN 100:56059

TI **Paving** asphalt **mixtures**

PA Nissin Hodo Kensetsu K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C08L095-00

ICA C08G018-69

ICI C08L095-00, C08L075-04

CC 58-4 (Cement, **Concrete**, and Related Building Materials)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | JP 58160354 | A2 | 19830922 | JP 1982-42795 | 19820319 |
| PRAI | JP 1982-42795 | | 19820319 | | |

AB Isocyanate-terminated urethane branched prepolymers, manufd. from polypropylene glycol and hydroxy-terminated **polybutadiene** as the polyols and MDI and/or TDI as the diisocyanates, are added to **paving** asphalt **mixts.** for good **flow** resistance and waterproofness. Thus, urethane prepolymers having 3-15 wt.% isocyanate terminal groups were made from polyols, a **mixt.** of polypropylene glycol (av. mol. wt. 3000) and hydroxy-terminated **polybutadiene** (av. mol. wt. 2800) and from MDI or TDI. The urethane prepolymers were added, 1-10 wt.%, to asphalt, to obtain **paving** asphalt **mixts.** Clastic rocks, sands, and fillers were heated to 175.degree. and added to straight asphalt and the urethane prepolymers to make heated **paving mixts.** The **mixts.** were rolled and wheel-tracking tested at 60.degree. and showed good **flow** resistance.

ST urethane polymer pavement

IT Urethane polymers, uses and miscellaneous

RL: USES (Uses)

(in asphalt pavement, for **flow** resistance)

IT Pavements and Roads

(urethane polymers in asphalt, for **flow** resistance)

IT **9003-17-2D**, hydroxy-terminated, polymers with polyols and diisocyanates 9016-87-9D, polymers with polyols 25322-69-4D, hydroxy-terminated, polymers with polyols and diisocyanates 26471-62-5D, polymers with polyols
 RL: USES (Uses)
 (in asphalt pavement, for **flow** resistance)

L96 ANSWER 24 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1983:577208 HCAPLUS

DN 99:177208

TI Polymer concrete

PA Idemitsu Kosan Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC C04B025-04

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): **58**

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|----------|
| PI | JP 58120562 | A2 | 19830718 | JP 1982-3412 | 19820114 |
| | JP 62020146 | B4 | 19870506 | | |
| PRAI | JP 1982-3412 | | 19820114 | | |
| AB | Compns. contg. a liq. diene polymer contg. active H groups, a polyisocyanate, and aggregate materials have low foaming and are useful for polymer concrete for floors and pavements. Thus, 1 part of a compn. contg. OH-terminated polybutadiene-4,4' -diphenylmethane diisocyanate mixt. (ratio of NCO group to OH group 1.05) contg. 0.5% dibutyltin dilaurate was mixed with 5 parts sand and cured to give a polymer concrete with low foaming and high compressive strength. | | | | |
| ST | polyurethane resin concrete; foaming redn polyurethane concrete; pavement polyurethane concrete; floor polyurethane resin concrete; sand filler polyurethane concrete | | | | |
| IT | Floors Pavements and Roads (polymer concrete for, polyurethanes contg. sand as) | | | | |
| IT | Urethane polymers, uses and miscellaneous RL: USES (Uses) (polymer concrete, contg. sand , for pavements and floors) | | | | |
| IT | Sand RL: USES (Uses) (polyurethane polymer concrete contg.) | | | | |
| IT | Polymer concrete (polyurethanes, contg. sand , for pavements and floors) | | | | |
| IT | 101-68-8D, polymer with hydroxy-terminated polybutadiene 9003-17-2D , hydroxy-terminated, polymer with diphenylmethane diisocyanate RL: USES (Uses) (polymer concrete, contg. sand , for pavements and floors) | | | | |

L96 ANSWER 25 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1982:439831 HCAPLUS

DN 97:39831
 TI Resin concrete
 PA Idemitsu Kosan Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 5 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC C04B025-06; C08L075-04
 CC 37-6 (Plastics Manufacture and Processing)
 Section cross-reference(s): 58

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|-----------|-----------|-----------------|------------|
| PI | JP 57022166 | A2 | 19820205 | JP 1980-95639 | 19800715 |
| | JP 62018510 | B4 | 19870423 | | |
| PRAI | JP 1980-95639 | | 19800715 | | |
| AB | Polyurethane compns. contg. a carboxylic acid metal salt (excluding tin salts) exhibit low blister formation and are useful as concrete for floors , pavements, and bridges. Thus, OH-terminated polybutadiene 100, N,N-bis(2-hydroxypropyl)aniline 25, bisphenol A-propylene oxide adduct 33, dioctyl phthalate 100, MDI 72, Fe naphthenate (I) 0.2, and sand 700 parts were mixed without blister formation, whereas blister formation occurred for a similar compn. contg. dibutyltin dilaurate instead of I. | | | | |
| ST | polyurethane resin concrete; iron naphthenate additive polyurethane; floor polyurethane concrete; pavement polyurethane concrete; bridge polyurethane concrete; roof polyurethane concrete; blister redn polyurethane concrete; polymer concrete | | | | |
| IT | Urethane polymers, uses and miscellaneous RL: USES (Uses) (concrete, contg. naphthenic acid or octanoic acid metal salts, for floors and pavements) | | | | |
| IT | Naphthenic acids, uses and miscellaneous RL: USES (Uses) (metal salts, polyurethane concrete contg., for reduced blister formation) | | | | |
| IT | Bridges Floors Roofs (polyurethane concrete for) | | | | |
| IT | Polymer concrete (polyurethanes, contg. naphthenic acid or octanoic acid metal salts, for floors and pavements) | | | | |
| IT | 101-68-8D, polymers with polyols 3077-13-2D, polymer with hydroxy-terminated polybutadiene , bisphenol A-propylene oxide adduct and 4,4'-diphenylmethane diisocyanate 9003-17-2D , hydroxy-terminated, polymer with N,N-bis(2-hydroxypropyl)aniline, bisphenol A-propylene oxide adduct and 4,4'-diphenylmethane diisocyanate 37353-75-6D, polymer with hydroxy-terminated polybutadiene , N,N'-bis(2-hydroxypropyl)aniline and 4,4'-diphenylmethane diisocyanate RL: USES (Uses) (concrete from sand and, for floors and pavements) | | | | |
| IT | 110-63-4D, polymers with polyols and 4,4'-diphenylmethane diisocyanate 9003-11-6D, polymers with polyalkylene glycol ethers, 1,4-butanediol and 4,4'-diphenylmethane diisocyanate RL: USES (Uses) (concrete, for floors and pavements) | | | | |
| IT | 557-09-5 | 4995-91-9 | 6535-19-9 | 6535-20-2 | 18312-04-4 |

RL: USES (Uses)
(polyurethane concrete contg., for reduced blister formation)

L96 ANSWER 26 OF 29 HCAPLUS COPYRIGHT 2003 ACS
AN 1974:557967 HCAPLUS
DN 81:157967
TI Bituminous composites
PA Shell Internationale Research Maatschappij B. V.
SO Neth. Appl., 9 pp.
CODEN: NAXXAN
DT Patent
LA Dutch
IC C08H; E01C
CC 58-5 (Cement and **Concrete** Products)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------|------|----------|-----------------|----------|
| PI | NL 7216310 | A | 19740605 | NL 1972-16310 | 19721201 |
| PRAI | NL 1972-16310 | | 19721201 | | |

AB The composites can be prepd. simply by **mixing** bitumen powder with a **mixt.** comprising a liq. based on mineral oil, elastomer, and aggregate. Thus, a soln. of 8 wt.% polystyrene-**polybutadiene**-polystyrene block copolymer (block mol. wt. 14,000, 65,000, 14,000, resp.) in a mineral oil (viscosity 21.7 cSt) was **mixed** with 2 wt.% aggregate consisting of stones 2-10 mm diam. 50, **sand** 47, and filler 3 wt.% for 2 min. The **mixt.** was further **mixed** with 10 wt.% powd. propane bitumen (softening **point** 120.degree., mean particle size 0.25 mm) for 10 min and the resulting **mixt.** was compacted to obtain a composite having a max. load capacity of 25 kg/cm², compared to 20 for that made without the copolymer. Further **mixing** for 10 min. with 10 wt.% powdered propane bitumen (softening **point** 120.degree., mean particle diam. 0.25 mm) and compaction in a Marshall compactor (ASTM D 1559/71), yielded a sample with a max. load capacity of 25 kg/sq.cm compared with a polymerless sample of 20 kg/sq.cm.

ST polymer bituminous composite

IT Building materials

(bituminous composites, contg. butadiene-styrene block copolymers)

IT Bitumens

RL: USES (Uses)

(building composites, contg. butadiene-styrene block copolymers)

IT 9003-55-8

RL: USES (Uses)

(block, building composites contg. biutmens and)

L96 ANSWER 27 OF 29 HCAPLUS COPYRIGHT 2003 ACS
AN 1968:444490 HCAPLUS
DN 69:44490
TI Isoprene-acrylonitrile rubber compositions
PA Polymer Corp. Ltd.
SO Fr., 9 pp.
CODEN: FRXXAK
DT Patent
LA French
IC C08D
CC 38 (Elastomers, Including Natural Rubber)

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------------|------|------|-----------------|------|
|--|------------|------|------|-----------------|------|

PI FR 1498196 19671013

PRAI CA 19651105

AB The title compds., which are used as shock absorbers, antivibration pads, and insulating materials, are prepd. by the mastication of isoprene (I) and acrylonitrile (II) at 100-75.degree. in the presence of a peptizer. Thus, II-I copolymer (III) contg. 37.5% moles II was ground 45 min. by 2 cylinders in the presence of 2% bis(2-benzamidophenyl) disulfide (Pepton 22) at 150.degree.. The Mooney consistency ML 1 +/- 4 (100.degree.) was 12 and 3.5 after 20 and 45 min. grinding time, resp. The masticated copolymer (IV) (100 parts) was **mixed** with a pptd. **silica** (Hi Sil 233) 7.5, ZnO 5, stearic acid 1, benzothiazolyl disulfide 1.5, and S 2.5 parts and cured 25 min. at 145.degree.. IV had a higher plasticity and **flow** index than a **control** non-masticated copolymer. IV **mixed** with 40% C and vulcanized 50 min. at 145.degree. gave a rubbery material with satisfactory phys. properties. IV improved the extrusion rate of II-butadiene copolymer without weakening the phys. properties of the cured mass. III contg. 22% II plasticized rapidly to give after vulcanization a flexible vulcanizate, with a 300% modulus 7 kg./cm.2 while III contg. 43% II plasticized slowly to give a vulcanizate with a 300% modulus 114 kg./cm.2 Rubber foams are prepd. by vulcanizing 20 parts of a **mixt.** contg. IV contg. 36.6% II 100, pptd. **silica** 10, Ca silicate 40, TiO2 10, ZnO 5, oleic acid 5, benzothiazolyl disulfide 2, S 1.5, octyldiphenylamine 1.5, and NaHCO3 10 parts for 30 min. at 145.degree. with 80 parts **cis-1,4-polybutadiene** (V). The tensile strength, % elongation, 100% modulus, tear strength, and permanent **set** of the foams prepd. were given. Styrenebutadiene rubber could be used instead of V.

ST isoprene acrylonitrile rubbers; acrylonitrile rubbers isoprene; shock absorbers rubbers; antivibration rubbers; nitrile rubbers

IT Rubber, synthetic
(acrylonitrile-isoprene, flow index and plasticity of **silica** -filled, masticated in presence of bis(2-benzamidophenyl) disulfide)

IT Rubber, butadiene-styrene, properties
(cellular, of masticated acrylonitrile-isoprene rubber-contg.)

IT Rubber, nitrile, properties
(extrusion, of masticated acrylonitrile-isoprene rubber-contg.)

IT Rubber, butadiene, properties
(of **cis-1,4**-configuration, cellular, of masticated acrylonitrile-isoprene rubber-contg.)

IT Extrusion of plastics
(of nitrile rubber contg. masticated acrylonitrile-isoprene rubber)

IT **7631-86-9**, uses and miscellaneous
RL: USES (Uses)
(acrylonitrile-isoprene rubber filled with, flow index and plasticity of, masticated in presence of bis(2-benzamidophenyl) disulfide)

IT 135-57-9
RL: USES (Uses)
(as peptizer in acrylonitrile-isoprene rubber mastication)

IT 25014-11-3, properties
RL: USES (Uses)
(rubber, flow index and plasticity of **silica**-reinforced, masticated in presence of bis(2-benzamidophenyl) disulfide)

L96 ANSWER 28 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1966:102308 HCAPLUS

DN 64:102308

OREF 64:19175d-f

TI Reinforced concrete
 IN Duvivier, Charles P.
 SO 2 pp.
 DT Patent
 LA Unavailable
 IC C04B
 CC 22 (Cement and **Concrete** Products)
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|------------|------|----------|-----------------|----------|
| PI | FR 1408835 | | 19650820 | FR | 19640707 |
| | BE 666542 | | | BE | |
| | NL 6508530 | | | NL | |

AB A corrosion- and abrasion-resistant concrete is obtained by the incorporation in portland, slag, or alumina cement of about 50% (based on the cement) of an aq. emulsion of a resin based on phenol, furan, poly(vinyl acetate or propionate), poly(vinylidene chloride), polystyrene, or **polybutadiene**. This modified concrete is characterized by a setting time decreasing by 40-50%, a compressive strength increased by 50% even after contact with a corrosive atm., increased shearing strength and adhesion to iron and other materials, and decreased porosity. Preferred uses for this type of concrete are rough plasters for chem.-resistant bricks, factory **floors** exposed to chem. attack, reinforced concrete masts, and concrete installations destined to preserve the effluents and decontamination products from nuclear power stations. For example, a **mixt.** of washed **sand** 1000, diatomaceous earth 10, portland cement 300, a latex of polyisobutadiene, styrene, or neoprene 150, and H2O 120 parts was resistant (after setting) to dild. HCl, H2SO4, HNO3, AcOH, lactic acid, butyric acid, bases, NH3, H2O, etc. A compn. for nuclear use contained the same proportions of **sand** and cement along with diatomaceous earth 50, a suspension of poly(vinylidene chloride) 150, and H2O 90 parts.

IT Phenol condensation products
 (concrete contg., for corrosion resistance)
 IT Concrete
 (polymer-contg., for corrosion resistance)
 IT 1,3-Butadiene polymers
 Ethylene, 1,1-dichloro-, homopolymer
 (in concrete for corrosion resistance)
 IT 9003-20-7, Vinyl acetate polymers
 (concrete contg., for corrosion resistance)
 IT 9003-53-6, Styrene polymers 25035-84-1, Propionic acid, vinyl ester polymers
 (in concrete for corrosion resistance)
 IT 110-00-9, Furan
 (resins, concrete contg., for corrosion resistance)

L96 ANSWER 29 OF 29 HCAPLUS COPYRIGHT 2003 ACS

AN 1955:6264 HCAPLUS

DN 49:6264

OREF 49:1303i,1304a-e

TI The effect of various rubbers on the properties of petroleum asphalts

AU Lewis, Richard H.; Welborn, J. York

SO Public Roads (1954), 28(No. 4), 64-89

CODEN: PUROAQ; ISSN: 0033-3735

DT Journal

LA Unavailable

CC 20 (Cement, **Concrete**, and Other Building Materials)

AB The authors concluded that: (1) The type of rubber used in the blend affects the characteristics of the asphalt in varying degree-natural and GR-S Type II synthetic rubbers (75/25 butadiene-styrene prepd. by coagulation in presence of a resin polymer or soap detackifier) produce large changes; **polybutadiene** rubber produces medium changes; reclaimed, processed, tire scrap, and GR-S Type V synthetic rubbers (70/30 butadiene-styrene prepd. by vulcanization, coagulation, and pulverization in presence of a detackifier) produce only small changes. (2) The addn. of rubber to asphalt has the following effect: (a) Softening **point** and viscosity are increased and the susceptibility to temp. change is decreased; **flow** is also decreased except for the blend of Venezuela asphalt with 5% of reclaimed rubber. (b) Penetration is decreased except in blends of California asphalt with natural rubber and with 5% of synthetic rubber. (c) Elasticity is increased in varying degree by the addn. of various rubbers. (d) Ductility at 77.degree.F. is greatly decreased except blends of California asphalt with natural rubber and GR-S Type II synthetic rubber. (e) Blends of asphalts with 7.5% of various rubbers show lower ductilities at 39.2.degree.F. than at 77.degree.F. except the blends contg. GR-S Type II rubber. Generally, the low-temp, ductility of the asphalt is not influenced greatly by the addn. of rubber. (f) Thin film oven tests show a wide difference in the resistance of different rubber-asphalt blends to the high temps. encountered in the processing of bituminous **paving mixts**. (g) Properties of rubber-asphalt blends as they exist in rubber-asphalt pavements cannot be detd. by available methods of extn. and recovery. (h) Since exptl. asphalt pavements contg. various rubber powders have not as yet shown significant differences in behavior between the sections contg. asphalt alone and those contg. rubber-asphalt blends, it is not possible, at present, to evaluate the influence of the rubber by means of tests of the blends made in the lab. (i) Changes in the properties of a given asphalt become more pronounced with increases in the rubber content of the blend. (j) With a given type and amt. of rubber in the blend, the changes in the properties of the asphalt vary with its character and source. (k) The temp., time of heating, and amt. of stirring in the prepn. of the blend all have their effects on the character of the blend.

IT **Paving**
 (asphalt-rubber)
 IT Asphalt
 (**mixts.** with rubber, for **paving**)
 IT Elasticity
 (of asphalt-rubber **mixts.**)
 IT GR-S rubber
 Rubber
 (**paving** from asphalt and)
 IT Rubber
 (**paving mixts.** from asphalt and)